THE Soybean Digest

Support Level

1958-59 OUTLOOK

Takeover

Prices

Beans

Oil

Acreage

Exports

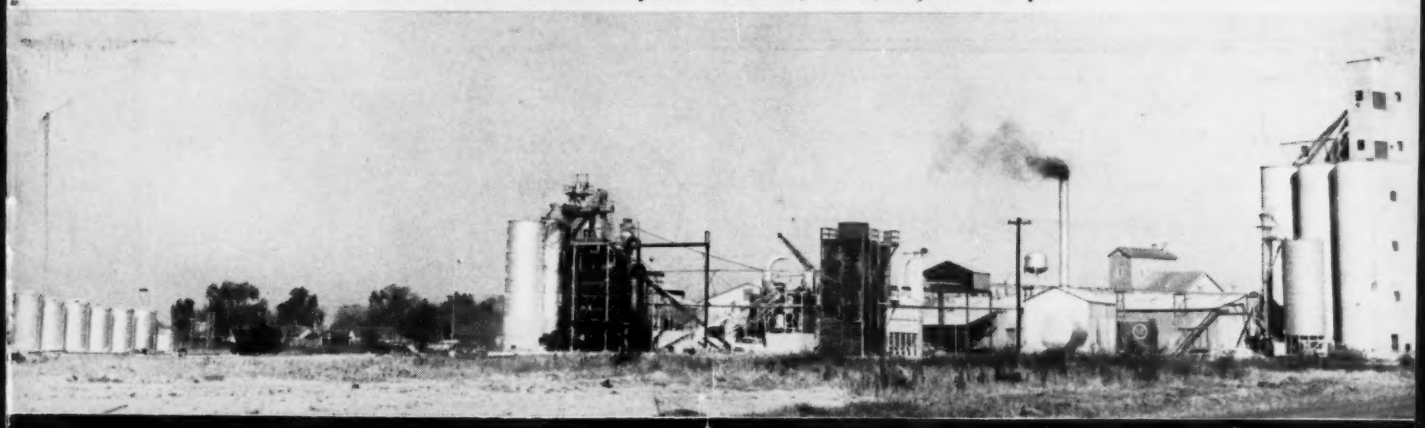
Carryover

Meal

Crush

Merry Christmas

New solvent extraction plant of Selma, N. C., Soybean Corp.



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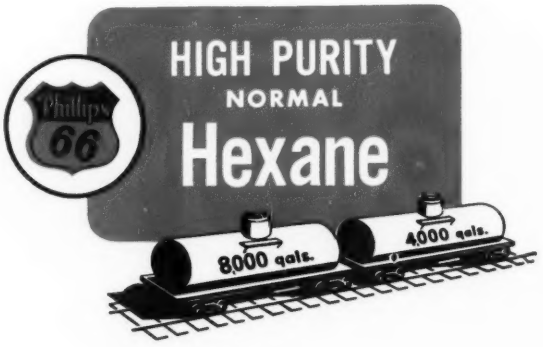

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THE Soybean Digest

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IN THIS ISSUE

Editor's Desk 4
GEO. M. STRAYER
Meal Shipped on New Trainload Rate 5
Drought Hurts Washington Soybean Crop 5
1958-59 Soybean Outlook 6
STAFF WRITTEN
Expansion Due to Three Groups 9
DWIGHT L. DANNEN
The News in Brief 11
Ford—A New Soybean 14
CHARLES R. WEBER
Predicts Pure Amino Acid Pig Supplements 15
Soybean Research at Purdue 16
GEORGE MORTON
New Organizations Stimulate Markets 19
Japanese American Soybean Institute 20
Housewives Want More Demonstrations 20
SHIZUKA HAYASHI
Soybean Council of America, Inc 21
Possible Soy Market in Austria 21
Crop Report 22
Twelve Percent Increase in World Soybean Crop 23
Publications 24
Most Russian Soybeans in Soviet Far East 24
Grits and Flakes 26
U. S. Crop Source of Most World Exports 28
November Markets 30
Washington Digest 32
PORTER M. HEDGE
Market Street 33
New Products and Services 34
In the Markets 36

THE SOYBEAN DIGEST

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Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safeguarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the members of the Association.

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EDITOR'S DESK

. . . By GEO. M. STRAYER

Calcutta, India . . . Nov. 16, 1958

THERE'S A BIG OPENING IN ASIA

For just over 1 month now I have been traveling the Orient. We have another month of similar travel ahead of us. Like the traditional traveler, we have now been here long enough to become experts! Just one quick look and we have all the answers!

We have been agreeably surprised at the opportunities for sale of U. S. soybeans and soybean products in the countries we have visited. Not only is there a need, but there is interest and there is desire to buy.

But we have at the same time been appalled that in the countries we have visited to date no one has ever visited the trade, visited the governmental agencies, told the story of what we have, left their cards, described our products, arranged for samples and quoted prices. There is little realization that we even have soybeans and soybean products to offer, for no one has ever made the fact known in this area of the world. Communist China is close, and is regarded as the producer of and source of soybeans because nobody else has ever offered to make sales.

We have already reached one very definite conclusion: If we want to sell soybeans, soybean oil and soybean meal in this part of the world we must have salesmen doing the selling and servicing job. It is not sufficient to sit at home and hope for customers—we must go find them. We must have sales representatives who know what we have to offer, who know U. S. quality, standards, trade practices, who know types and sources of supply. Sales will be made in small lots—but to a fantastic number of outlets.

From what we have been able to determine our biggest problem is the great distances involved, and the high ocean freight costs. If some means can be found to minimize those costs then we can be in business. The customers are here waiting to be supplied. Our industry must find a means of putting the needed sales representatives in the field over here just as soon as possible.

Psychologically this is the time for us to move. Until you have been in this area it is impossible to realize the extent to which political motivation is governing the sales of Communist China products to all these countries. Burma, for instance, with a common border with China about a thousand miles long, needs and wants U. S. soybean oil. Intense pressures, both political and economic, are exerted on her to draw her closer to Red China. Her leaders are pro-United States, want to work with us, but do have to have more than moral support in order to do so. Funds were recently allocated for purchase of vegetable oil under P. L. 480. But the Burmese have never used soybean oil, know nothing about it, need help in purchasing so they get an oil acceptable to their people. No one had ever even offered to talk with them about it before we arrived. We did our best to help, but much followup work must be done if they are to become longtime customers for U. S. soybean oil. We cannot afford to neglect the markets in this area of the world any longer—not with the 1958 soybean crop staring us in the face from full warehouses.

PENNY-WISE ACTION

Word reaching us here on a much-delayed basis indicates that the Bureau of the Budget torpedoed the use of U. S. vegetable oils in the relief feeding programs, as had been provided in the new P. L. 480 bill passed by Congress.

No details have reached us. The justification of the Bureau of the Budget for overruling the Congress of the United States, together with the Department of Agriculture, is hard to figure out from this side.

From half way around the world it appears that the Bureau of the Budget has probably saved the United States government pennies now and made necessary the expenditure of dollars later in the crop year. If the soybeans had been processed, the meal utilized, and the oil moved into relief feeding channels during the next few months we would have, in my estimation, averted the ownership of many millions of bushels of soybeans by CCC. We would have solved a temporary problem, allowed the longtime problem to solve itself through lowered soybean acreage in 1959.

Now we have but one alternative—CCC soybeans stocks. From here it appears that the Bureau of the Budget did the type of penny pinching in October that will cost millions of dollars in May. Someone was very ill-advised in the Administration—and we know it was not in the Department of Agriculture, for we discussed it thoroughly with officials.

Editor Strayer is in Asia as part of a three-man team making a survey of potential markets for U. S. oilseeds in that part of the world.

Meal Shipped on New Trainload Rate

THIS IS a picture of a trainload of soybean oil meal leaving the Honeymead Products Co. plant at Mankato, Minn., destined for New York State, via Duluth and the Great Lakes.

The trainload, which totaled 1,700 tons, moved to Duluth on a new trainload rate. It was transferred at Duluth to a lake boat destined for Buffalo, N. Y. It was the first such meal movement made on the newly formed rail rate established by the Chicago & Northwestern Railroad. Such movements are expected to become common in the future.

The movement of soybean meal by boat, another innovation, was assisted by George Zipoy, vice president of the American Federation of Grain Millers, AFL-CIO. He was instrumental in obtaining the unloading assistance of the Buffalo Scoopers Union.

Honeymead also moved its 19th trainload of soybean salad oil for export the week of Nov. 10 to 15. The trains have ranged from 40 to 86 cars.

Drought Hurts Washington Crop

SOYBEAN CROP in Stevens County in northeast Washington did not turn out as well as hoped this year. Here Harvey Scammon and son Windall, who farm near Colville, inspect their beans which ran 5 bushels to the acre. Similar yields are reported throughout the county.

General opinion is that hot dry weather, and possibly lack of experience, contributed to the low yields. First beans were grown in Stevens County in 1957. Farmers grew 300 acres of the Acme variety this year, and planned to use all production for seed. They have organized the Northeast Washington Soybean Growers Association.

Results were discouraging this year, but it is said most farmers plan to grow soybeans again next year, and some to put more acres into beans.

Among the organizers of the local association were Edwin C. White and R. N. McLean. Mr. White writes:

"This is the second year that Mr. McLean and I have raised soybeans and we have, in our own minds, proved the theory false that you cannot mature soybeans in eastern Washington due to the cool nights.

"In the past 2 years we have matured varieties: Acme, Flambeau, Pridesoy,*Norchief, Comet, *Harosoy, *Capital and *Hardome. In 1957 Flambeau rodrowed 34.4 bushels per acre in Whitman County and 40 bushels per acre in Stevens County. They stood the weather well and did not shell out on the ground.

"This year the insects moved in on us in large numbers, (soybeans) being the only thing left green in the area and then the pods started to shell out to put about twice the number of beans on the ground that we got in the sack.

"Results of this year will no doubt eliminate the weak at heart for 1959 seedings. But the majority of us plan to seed the same acreage next year as we had this. We feel by using pre-emergence sprays and other cultural practices that soybeans definitely will eventualy be a crop for this area.

"With wheat and other feed grains going from bad to worse in both price and oversupply I don't see how this can help but interest more people in soybean production."

*These varieties grown in Whitman County.

Buckeye Cellulose to Sell Four Soybean Plants

PLANS TO SELL four soybean crushing mills and to close two cottonseed crushing units were announced Nov. 4 by the Buckeye cotton oil division of the Buckeye Cellulose Corp., Cincinnati, Ohio.

The mills which were sold to the Ralston Purina Co., St. Louis, are located in Memphis (Binghamton Mill), Tenn.; Raleigh, N. C.; Louisville, Ky.; and New Madrid, Mo.

The two cottonseed mills scheduled for closing at the end of the current crushing season are in Jackson, Miss., and Macon, Ga.

The two moves leave Buckeye with five crushing mills, all primarily crushing cottonseed, located in Augusta, Ga.; Little Rock, Ark.; Montgomery, Ala.; Corinth, Miss.; and Memphis, (Hollywood Mill), Tenn. Procter & Gamble, Buckeye's parent company, will also continue to operate seed crushing mills through other subsidiaries in Fort Worth, Tex., and Toronto, Canada.

Discussing the soybean mills sale, Buckeye President Walter L. Lingle, Jr., said:

"Buckeye entered the soybean crushing business primarily to supply Procter & Gamble with soybean oil for food products. Recently, however, the increasing importance of soybean meal for animal feed has made it desirable for soybean crushers to enter the mixed feed business. That's not Procter & Gamble's or Buckeye's kind of business, so it became sound business policy for us to buy soybean oil on the open market and to dispose of these facilities for crushing soybeans."

Mr. Lingle said the continuing decline of the cotton crop in the Jackson, Miss., and Macon, Ga., areas made it necessary to close Buckeye's cottonseed crushing units in those cities.

(Staff Written)

BARRING a major upset, the outlook for soybeans in the 1958-59 marketing year is simply stated by T. A. Hieronymus, University of Illinois farm marketing specialist:

"The crop size plus the carryover is so large that there is no realistic possibility of running out.

"I have no doubt enough soybeans will move into the loan to force the price up to the loan. I expect that Commodity Credit Corp. will maintain its usual policy of selling at the loan price which means that soybeans will not go above the loan.

"The only question about soybean prices is, When will they get to the loan?

"The most interesting questions about soybeans are the amount that will be used and the size of the carryover next Oct. 1.

"We will have a very large disappearance of soybeans but also quite a substantial carryover."

The Soybean Digest wrote a number of soybean belt economists, processors, handlers and growers asking for their opinions on the soybean outlook for the marketing year which began Oct. 1.

Based on their answers, we believe few observers would quarrel with the above statement by Dr. Hieronymus. With total supplies of soybeans over 100 million bushels above last year, the market outlook seems pretty clear.

There is, of course, plenty of disagreement over details. For instance, some observers think the Department of Agriculture has overestimated the 1958 soybean crop. A few believe the crop has been underestimated. But nobody thinks the estimates can be off far enough to affect the market.

Soybean Prices

The general view is that soybeans will rise to the loan rate—pushed up there by the large bushelage of 1958-crop soybeans in storage. But they will not rise much above support rate.

Growers need not accept less than their local support price plus storage charges plus moisture premium, if their beans are dry enough. And it is not likely that they can get much more, unless the fats and oils situation changes greatly.

Fred H. Hafner, General Mills, Inc., Minneapolis, Minn., believes the support price will become the ceiling in areas of heavy supply. In deficiency areas where processing capacity exceeds soybean production, the support price could well become the floor.

Meal Prices

Quoting Leonard W. Schruben, professor of agricultural economics, Kansas State College, Manhattan: "Our livestock feeders expect to be able to buy soybean oil meal at somewhat lower prices than they were able to purchase it last year.

"With the large supplies of cheap grains on hand, we do not see how soybean oil meal prices can advance materially because under these circumstances feeders can afford to heavy up the ration with grain rather than feed a too-expensive ration of soybeans."

But Hafner at Minneapolis notes that meal prices have fluctuated wildly and he thinks they probably will continue to do so during the balance of the crop year. "Blame intermittent heavy export demand for this."

Price Prediction

Glenn Pogeler, North Iowa Cooperative Processing Association, Mason City, offers the following price predictions:

Soybeans—A low of $1.85 to farmers in northern Iowa. A high of $2.05.

Soybean oil meal—A low of $42 Decatur to a high of $62.

Soybean oil—A low of 8½¢ to a high of 10¢. (We have seen some nearby delivery soybean oil in the last 60 days at over 10¢, but such sales will be a small part of the total market.)

Here are some developments you might watch for that could change the market outlook:

A war scare.

Soybeans being declared in surplus and thus eligible for P. L. 480 exports.

A big vegetable oil donation program, as advocated by the American Soybean Association.

Howard McWard, Illinois Grain Corp., Chicago, believes if CCC should offer a resealing program on soybeans, this would siphon off possibly 30 to 35 million bushels and processors would become very active in the market.

Timing Sales

Concerning timing of sales by the man holding soybeans, Paul L. Farris, associate professor, agricultural economics, Purdue University, suggests:

"Prices can be expected to fluctuate moderately and perhaps occasionally rise above the loan rate. But because of the large supply, the price will not for long remain above the loan rate.

"The man with soybeans to sell should watch current market developments closely and be prepared to move them when he thinks the price is at the high point of a short-time price movement. *The chance is very remote for a persistent price rise very far above the loan rate.*"

G. L. Jordan, University of Illinois farm economist, offered the following advice to producers at the American Soybean Association's convention in August:

"Livestock usage can be met by a crush of 375 million bushels in 1958-59."

Avoid sales of soybeans below $1.90. Sell on bulges that equal or exceed the loan rate. Dr. Jordan believes the advice is still good.

Meal, Oil Demand

The general assumption in the trade has been that the market for meal will take care of itself as it did last year, but that the main problem will be to dispose of the oil from the big 1958 soybean crop. Observers note larger supplies of competing lard, cottonseed oil and other fat products.

But Hieronymus at the University of Illinos makes the following comment on oil: "I rather think that the oil may be quite as strong a situation as the meal. In the domestic market we will use our standard quantity per capita which means an extra 150-160 million pounds because of population increase. The price support program for cottonseed oil will apparently take about 300 million pounds that must be replaced by soybean oil. This will fully offset the increase in lard, so that on balance we will need more soybean oil for domestic use this year than last.

"Taking the increased domestic use and the increase in exports into account, it appears that the *oil from a crush of 382 million bushels of soybeans will be needed.*

"Our price of oil is dependent on the world price of oil. The behavior of the world price of oil for the last 2½ years leads me to think that a bottom may be reached and, accordingly, fairly firm oil prices will continue."

Concerning the disposal of the meal, Hireonymus continues: "The question comes as to the price at which we can move the meal from a 382-million-bushel crush. This is a fairly substantial increase from last year (353 million bushels).

"I do not think we will have the increase in the feed business that we had last year. We have more poultry and more hogs but we had a very big increase in protein utilization per animal last year. I think that this increase was the result of the high prices of livestock and livestock products.

"With cheaper livestock, particularly hogs, I doubt if the demand shows much increase. Accordingly, meal prices will be lower than last year, averaging in the neighborhood of $50 to a little below.

"With soybeans eventually getting up to the loan and with a large crush in the beginning of the year I think that we will continue to crush in the neighborhood of 32 million bushels a month at the kind of product prices I have been mentioning."

Size of Crush

L. C. Cunningham, professor of farm management, Cornell University, notes: "It is pointed out that the calculated usage of high-protein feeds by all classes of livestock and poultry for the current year can be met by a crush of approximately 375 million bushels of soybeans, together with feedstuffs from other sources. This compares with a crush of 353 million bushels last year."

A crush of 360 to 380 million bushels, assuming profitable operations by processors, is the figure most generally accepted by the trade at this time. One or two estimates are higher. Which leaves over 200 million bushels for export, farm use and carryover into the next crop year.

Export Outlook

Washington officials think soybean exports in 1958-59 will be at least as large as last year, and vegetable oil exports will be up at least 7%. P. L. 480 exports will be larger.

Quoting Hieronymus again: "Exports should be substantially larger than last year. French West Africa has a big peanut crop but the French are committed to buy this at high prices.

"The drought is continuing in the Philippines and I expect the tight copra situation to continue, resulting in 250-300 million pounds less oil available for Europe this year than last. The olive crop is smaller and because of increases in population our P. L. 480 sales to the Mediterranean Basin should be somewhat larger.

"Increases in European population will require 100 million pounds more oil than last year and they have been increasing per capita consumption about 1% per year. European lard production will be down moderately which means a greater import requiremen'.

"Our P. L. 480 programs have begun well and the Department seems to be pursuing this with great vigor. So I expect the P. L. 480 total will be larger than last year.

"Taking all these into account, our potential increase in dollar exports of cottonseed oil, lard, soybean oil and oil as soybeans will be about 475 million pounds. With the increase in P. L. 480 exports our total exports of the major fats amount to almost 3 billion pounds compared to 2.4 billion last year."

Support Level and Acreage

General belief is that the Department of Agriculture will lower the support level on 1959-crop soybeans, and that U. S. soybean acreage may drop next year, for the first time in 6 years.

It appears that the size of the 1959 soybean acreage depends on the size of the corn and cotton acreages and on corn supports in relation to soybean supports.

The most substantial reason that soybean acreage may be reduced in 1959, with a possible smaller soybean crop next fall—something to keep in mind in planning your next year's operations—is the expectation that more corn and cotton will be planted next year.

Observers have placed the expected increase in corn acreage as high as 4 million and cotton as high as 7 million acres. It is not likely that millions of additional acres will go into corn and cotton without some acres being taken out of soybeans.

Quoting Howard McWard, Illinois Grain Corp., Chicago: "I look for less acreage of beans for the coming year. It appears in our discussions with Illinois farmers that they are going against corn allocations and they are going to plant corn next year. In fact, I have heard some of them say they will plant their entire farms in corn."

But Jake Hartz, Jr., Jacob Hartz Seed Co., Stuttgart, Ark., doubts that there will be as large an increase in cotton acreage as earlier expected. He looks for soybean acreage in Arkansas—where it has increased 300% since 1950—to be about the same in 1959 as this past year.

Dwight L. Dannen, president of Dannen Mills, St. Joseph, Mo., notes: "Farmers like to grow soybeans because they fit into the crop rotation, and they spread out the work load on the farm. I see no reason to expect a drastic reduction in acreage. Actually, over a period of years I expect to see a general upward trend in soybean acreage."

It seems doubtful that 1959 will end, permanently, the expansion of soybean acreage. But it could be halted temporarily to allow the economy time to digest the 125-million-bushel yield increase of the past 2 years.

What about the support level?

Hartz at Stuttgart, Ark, states: "There is strong support by Depart-

"I think we have been too concerned about a carryover of soybeans."

ment officials to lower the support level on soybeans to $1.80-$1.85 per bushel for the 1959 crop ($2.09 this year). Personally, I am in favor of lowering this support price, however, it meets with disfavor among a large number of growers.

"Looking back over the history of soybeans, their success has been because we have continued to furnish the industry with the product needed at price levels to meet world demands. The minute we stop doing this, we are in serious trouble. With the continued upward trend in yield, we should lower our price so that we can keep up our sales program."

But Francis A. Kutish, extension economist, Iowa State College, comments: "Judging by past actions, you would expect that USDA would lower the support level on the 1959 crop of soybeans.

"However, the concern over the potentially large feed grain supply in the making may be sufficient to offset this and cause the Department of Agriculture to maintain the 1959 soybean loan at the same level as in 1958 in a hope to hold down the amount of increase in feed grains."

Takeover and Carryover

It is now generally believed that CCC will take over a large quantity of soybeans next May 31—between 50 and 100 million bushels seems to be the prevailing view. And that with the government as the primary price making factor in the market this year, the exact size of the takeover will not make much difference in the price level.

A large part of the 1958 crop has gone into storage and it is expected that most of the stored soybeans will be placed under the support program.

Albert Dimond, Lovington, Ill., past president of the American Soybean Association, writes: "No question about it being a big crop and I think a lot of soybeans are going to get under seal. They seem to be moving under the tent in more volume and faster than ordinary."

Quoting Dixon Jordan, Standard Commission Co., Memphis, Tenn.: "A determined effort has been made to find room to store a crop that is almost a third larger than any previous crop (in the Midsouth). The basis has declined sharply . . . further stimulating efforts to store a substantial part of the crop.

"The effect of the loan in supporting prices has been marked. There has been no pellmell rush to sell in the South, although the movement has been seasonally quite heavy, as expected."

D. N. Harrington, farm economist, University of Missouri, reports that a larger number of loan applications than for last year are being made by Missouri producers and that the bushels per application are up appreciably.

McWard at Chicago notes: "In the past farmers have been hesitant to sell soybeans after they once put them in storage unless the market is 4¢ or 5¢ higher than the support price. It appears to me that the market price will have to go up to about $2.05 or $2.10 to pry loose substantial quantities of soybeans."

Pogeler at Mason City, Iowa, offers the following: "I would estimate that approximately 125 million bushels of the 1958 crop will go under the support program. That is about 35 million bushels more than last year. This means, that of the approximate 100-million-bushel increase this year, only 35% of the increase will go under the loan, which means that *the difference of 65 million bushels will be available to supply the market needs.* Over the period of the year, I do not believe that the support program will be as effective in maintaining a strong soybean market."

Once again most observers in the trade are looking for a large carryover into the next crop year. Some estimate the carryover as low as 30 million bushels, but more place it at 75 to 100 million.

It should be remembered that at this stage of the past 2 marketing years carryovers of up to 100 million bushels were freely predicted. But the carryover from 2 years ago was only 9 million bushels, and the carryover from this past year was 21 million. A really large carryover has never yet materialized. This has been due in no small part to efforts of the American Soybean Association, the Soybean Council of America, and industry and government leaders to keep soybeans moving freely in the market place.

Can we again avoid a burdensome carryover next October in spite of the almost 100-million-bushel increase in the bean crop? The efforts of the American Soybean Association and the Soybean Council in their export programs are directed to that end. Their philosophy continues to be that so long as we can keep soybeans out of surplus we can avoid many of the headaches that afflict other crops.

Of course, not all in the trade agree just what constitutes a burdensome surplus. McWard at Chicago comments: "I think we have been too concerned about a carryover of soybeans. I think it would be good for our economy to have a carryover of 50 to 75 million bushels of soybeans. It would make a more stable market, especially at the tail end of the old crop and beginning of the new."

Selma Operates First Solvent Plant In N. C.

MEN WHO handled most of the detail work in building of the Selma Soybean Corp. Left to right, R. G. Gurley, general manager; Everette Bullard, plant superintendent; and N. Hunt Moore, consulting engineer.

SELMA SOYBEAN Corp., Selma, N. C., began operation of what is said to be the first solvent plant on soybeans in North Carolina in November.

The 100-ton-daily Anderson unit was purchased from the Glidden Co. in California and transported to Selma by seven freight cars and four trucks. Assisting with construction work were N. Hunt Moore, Memphis, Tenn., consulting engineer; Carl A. Williamson, Princeton, N. C., who laid the foundation; and H. F. Holt, Wilson, N. C., architect and engineer.

Officers of the new corporation which has assets valued at $125,000, are Floyd Price, Jr., president; A. L. Perry, first vice president; A. Z. Thompson, second vice president; and R. G. Gurley, secretary-treasurer and manager.

The firm expects to buy 1 million bushels of soybeans from the states of North Carolina, South Carolina and Virginia for the coming year's operations.

Expansion Due to 3 Groups

By DWIGHT L. DANNEN

President, Dannen Mills. From speech to Flour Mill & Grain Accountants Association, St. Joseph, Mo.

SOYBEAN products "took over" the market in the 20-year period from 1935 to 1955. In 1935, 217 million pounds of fats and oils were used in margarine. Only 1 million pounds, or less than ½%, was soybean oil. In 1955 the total had climbed to 1.075 billion pounds, of which 746 million pounds was soybean oil—a total of 69%. A fantastic gain for soybeans.

On total consumption of fats and oils, soybean oil has risen from 27 million pounds in 1935 to 2.26 billion in 1955—30% of the total fats and oils consumption.

The statistical picture on soybean oil meal is just as startling. In 1935 the total consumption of feed of the five major oilseeds was 2,253,000 tons, with soybean oil meal at 245,000 tons, making up only 11% of the total. Twenty years later, in 1955, the total consumption had almost quadrupled to 9.2 million tons, but the usage of soybean oil meal had skyrocketed to 6 million tons, or 66% of the total.

Much of the credit for the successful development of this dynamic soybean industry must be given to three associations — the National Soybean Processors Association, the American Soybean Association, and the newly organized Soybean Council of America, Inc., now 2 years old.

There are relatively few soybean processors in the United States. Eighty-seven member firms of the National Soybean Processors Association represent 98% of the nation's soybean processing capacity. National Soybean Processors Association has established what I think you will agree are the best known, widest used trading rules in the feed industry today.

Also, the National Soybean Processors Association developed and implemented the Soybean Crop Improvement Council, which has worked with state college and federal experiment stations to improve soybean varieties and cultural practices. So successful has the Crop Improvement Council been that it is serving as a model for other industries in a program of college-industry relations.

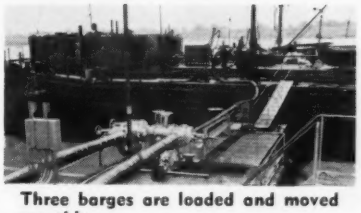
The American Soybean Association is a growers' organization representing the soybean farmers. American Soybean Association has been fortunate in having very alert, forward-looking leadership. Here you see a group of American farmers who actually have gone to government petitioning for lower support prices, and have urged tightening of grading standards on their own product in order to meet demands of a world market. By this action they've kept soybeans moving in market channels to consumption rather than piling up in government surpluses.

These two associations, the National Soybean Processors Association and the American Soybean Association, joined together in 1956 to form the Soybean Council of America, Inc., to promote the sale of soybean products in the domestic and world markets. Some very excellent work has been done by the Council in this field.

Soybeans, the crop that has never been in surplus, will continue to expand—600 million, 800 million, a billion bushels of soybeans a year will be raised, processed and consumed as this great soybean industry continues to grow and develop.

Storage capacity totals more than 14 million pounds. Controlled heat enables us to move products through the tanks in cold weather.

Three tankwagons can be unloaded simultaneously.



Three barges are loaded and moved monthly.

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PETROLEUM SOLVENTS

The News In Brief

THE CROP, MARKETS AND OTHER ITEMS OF NOTE

Look for Same '59 Acreage

In spite of the outcome of the Nov. 25 corn referendum, in which corn acreage allotments in 1959 and after were voted down, the U. S. Department of Agriculture estimates that **total soybean acreage in 1959 will be nearly the same as this year.**

Washington looks for more acreage to be returned to corn and cotton, and for some of these acres to come out of soybeans. Also, lower price supports may influence fewer planted soybean acres.

But, while soybeans will lose some acres to corn and cotton, they should pick up some from the soil bank, and total acreage will be around 24 million (24.6 this year). At recent average yields the total U. S. crop would be around 525 million bushels (575 million this year.) For other views on the size of next year's soybean acreage see 1958-59 outlook article in this issue.

Japan Import Quota

The Japanese Ministry of Agriculture has revised downward the quotas under its soybean import plan for the 1958 fiscal year which began Apr. 1, USDA reports. The revision calls for total imports of 28 million bushels, a reduction of some 375,000 bushels from the previously planned imports.

Import quotas are based on a budgetary estimated price of $98 per metric ton ($2.66 per bushel) c & f Japanese ports. If prices rise or fall, imports will increase or decrease accordingly. USDA terms resumption of soybean trade between Japan and China unlikely at this time.

A Japanese source reported in mid-November that Japanese oil mills have contracted for a total of 1,032,394 bushels of new crop U. S. soybeans for October-January shipment. With January shipment purchases still to be made by two of the largest mills, the January total is expected to reach another 90,000 bushels, and February purchases 180,000 bushels.

A Japanese report quoting New China News Service is that 1958 soybean acreage in China was 28.3 million acres, a decline of 7.7 million acres, but that the total crop is nearing 15 million metric tons (551 million bushels), an increase of 25% to 50% over last year. If this is true, the China-Manchuria crop is close to the U. S. crop in size, and is far above the 350 million bushels estimated by USDA. (See report of world crop in this issue.)

Some Reports on Exports

Secretary of Agriculture Benson announced in late November that Pakistan is taking 44 million pounds of cottonseed or soybean oil under P. L. 480, or about 20,000 metric tons. This compares with about 14 million pounds bought by Pakistan last year.

Earlier P. L. 480 agreements announced during November included one with Spain expected to result in the shipment of about 35,000 metric tons of U. S. soybean oil; one with Israel which should result in shipment of 8,000 metric tons; and one with Poland which will amount to about 15,000 metric tons.

Barter Plan for Beans

Commodity Credit Corp. takeover beans from the 1957 crop are eligible for export under the barter plan starting Dec. 1, USDA announced. The CCC sales list for December carries the pricing basis for establishing the sales value for soybeans for movement under barter.

Beans may be exported as beans or many be domestically crushed and exported in the proportion of 11 pounds of oil and 47 pounds of meal, cake or pellets for each 60 pounds of soybeans acquired from CCC.

It is not necessary to export the identical beans, but they must either be identical or substitute beans rating U. S. No. 2 or better.

Suspend Meal Rate Reduction

A reduction of about 40% in railway freight rates on all vegetable oil meals effective Dec. 1 **was suspended by Interstate Commerce Commission just before its effective date.** The lower rates were to be in effect in an area roughly between the Mississippi River and the Rocky Mountains and into the Southeastern States and were intended to make the railroads more competitive with the trucklines.

Nobody was opposed to the reduction but it is reported some of the soybean processors objected to the timing of the cut rates. The suspension is for 7 months unless ICC can clear its docket in order to handle the case.

There was a possibility that the suspension might be lifted but no indication of this as the Soybean Digest went to press in late November.

Oil Meal Supplies Up 20%

Total supplies of the five major oilseed meals available for feed in 1958-59 are estimated at 12.8 million tons, compared with 10.7 million tons fed last year, according to the report of the feed survey committee of the American Feed Manufacturers Association, out in November. **This is as expected increase of 20%, much of it accounted for by the large soybean crop.** The committee is composed of 24 college and experiment station men from every major U. S. feeding section.

The oil meal equivalent of all high-protein byproducts for feed amounted to 14.3 million tons in 1957-58, up 4% from the year before, according to the feed survey committee. The supply available for 1958-59 is calculated to be 16.8 million tons, an increase of 15% over 1957-58.

Increased supplies of high-protein feeds and an abundance of grains and mill feeds **will be more than ample** for 14% more hogs and 10% more broilers and increases in meat classes of livestock in every major section of the country during the next 12 months, according to the committee.

Movement From Elevators

A small movement of elevator-stored soybeans was reported in late November, with no sales from farm storage, by J. E. Johnson at Champaign, Ill., and Henry Leitschuh at Sleepy Eye, Minn. There seemed to be little expectation that there will be any movement from farm storage before Jan. 1.

A central Indiana report is that farmers have sold most of their crop, as they needed the money and did not look for prices to rise enough to pay for storage. F. E. Hunt, Adair, Iowa, wrote that most soybeans in his arear were sold direct to elevators.

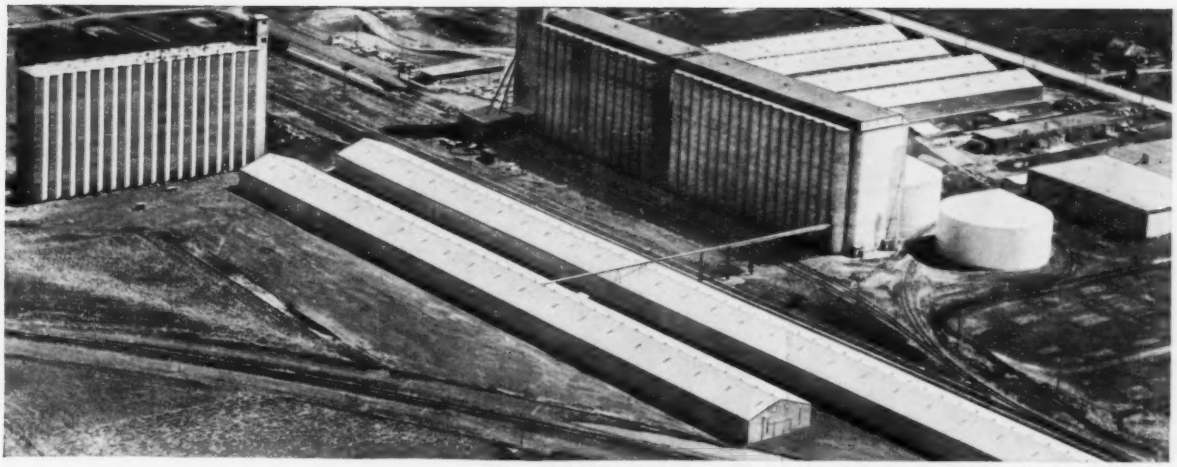
Louis Groh, Louis Groh & Son, Clay Bank, Va., reports that 25% of the crop remains in farmers' hands in Tidewater, Virginia and that farmers are waiting for a higher market.

Late Harvest Reports

As of the last of November 95% of the crop was harvested in Tidewater, Virginia, and the harvest was about three-fourths complete for the state as a whole. **High yields are reported in Virginia** although some fields are running below earlier estimates. About 80% of the crop was combined in Tennessee, and 95% in Delaware. More than four-fifths of the crop had been harvested in the mountain and Piedmont counties of North Carolina, and more than two-thirds in the commercially important coastal plain counties. Some soybeans have yet to be combined in eastern areas of Oklahoma.

Howard McWard, Illinois Grain Corp., Chicago, notes that some soybeans went into storage during the fore part of October with over 14% moisture content, during a spell of high humidity. Some farmers have been having trouble with their beans deteriorating in storage.

The government of Colombia, to help increase the production of oilseeds including soybeans, has issued a decree requiring vegetable shortening factories to use the oil of domestically produced oilseeds, according to a USDA report. Also, as part of the plan, any flour must be mixed with wheat flour in the manufacture of baked goods.



Six buildings provide over 5,000,000 bushels of grain storage at Hastings, Nebraska.

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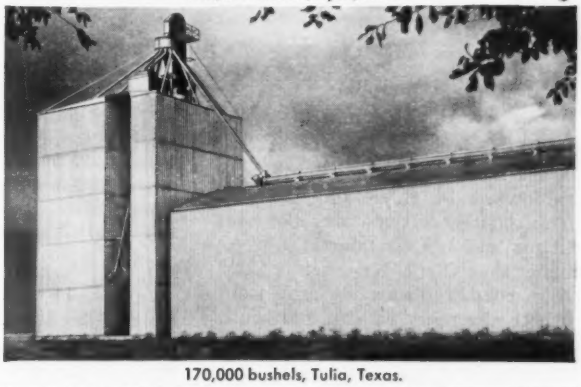
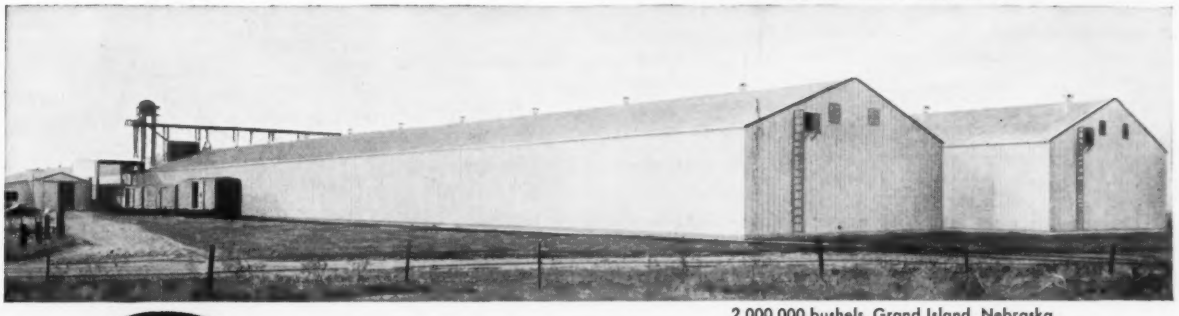
Whether you need 1,000,000 bushels of flat storage, or 10,000, investigate Butler buildings. For details, contact your nearby Butler Builder. He's listed in the Yellow Pages under "Buildings" or "Steel Buildings."

750,000 bushels, Dyke, Iowa.



170,000 bushels, Tulia, Texas.



2,000,000 bushels, Grand Island, Nebraska.

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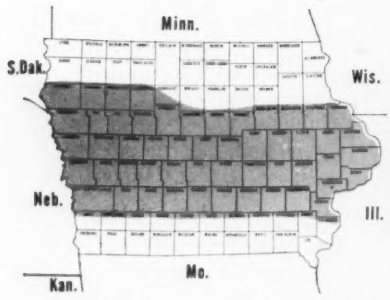

MAP SHOWS area where Ford is best adapted and roughly where seed will be distributed.

—Photos courtesy Iowa Farm Science

AUTHOR WEBER looks over a field of breeder's stock Ford soybeans in 1958. The Committee for Agricultural Development increased the seed during 1958 for distribution to certified seed growers in 1959.

FORD—A New Soybean

The new soybean variety, Ford, will be grown by farmers in north central and south central Iowa for the first time in 1959. Here are some details on Ford, on its performance in tests and on what you can expect of it.

By CHARLES R. WEBER*

FORD IS A NEW soybean variety for north central and south central Iowa. It's high yielding and good in oil content. It matures between Adams and Lincoln and is a week earlier than Clark. We consider Ford an improved replacement for Lincoln in both the north central and south central areas.

Iowa testing has shown that Ford:

—outyields Adams and Lincoln by an average of more than 2½ bushels per acre, ranking just below Clark in yield;

—matures about 2 days later than Adams, 1 day earlier than Lincoln and 7 days earlier than Clark;

—lodges slightly less than Adams, Lincoln and Clark but is about the same in height;

—is similar in oil and protein content to Lincoln and Clark.

Ford's Record

The results of Iowa tests summarized in the table were obtained in northern, central and southern Iowa over the 7-year period 1951-57. Ford gave higher yields than Lincoln and Adams in 44 of 49 test comparisons and yielded higher than Clark in about half of the tests.

Ford stands up a little better than Adams, Lincoln and Clark but has about the same height and, thus, is satisfactory for combining. In oil content, Ford compares favorably with Lincoln and Clark but is slightly lower than Adams.

With normal planting dates, Ford should do best in central Iowa. It should be considered a full-season bean in north central Iowa and a mid-season to early bean in the southern part of the state. Our results indicate that Ford can be grown successfully in the southern two-thirds of the state and should replace all Lincoln acreage and some of the acreage in Adams, Hawkeye and Clark.

What It Is

Lincoln and Richland were crossed at the Iowa Experiment Station in 1941. This hybrid was crossed back to Lincoln at the Illinois Experiment Station. From that backcross, hundreds of selections were made at Iowa State College over a 13-year period. One of these selections was named Ford. It represents the twenty-first of a series of superior varieties developed since 1944 for

* Charles R. Weber is associate professor of agronomy, Iowa State College, and agronomist, crops research division, ARS, USDA.

PERFORMANCE OF FORD AND OTHER SOYBEAN VARIETIES IN IOWA 1951-1957

Variety	Bushels per acre	Lodging score [1]	Maturity	Height (inches)	Chemical composition [2]	
					protein (%)	Oil (%)
North, central and southern Iowa, 49 tests						
Adams	34.1	1.9	Sept. 22	41	39.0	22.1
Ford	37.1	1.7	Sept. 24	41	39.5	21.6
Lincoln	34.7	2.0	Sept. 25	41	39.8	21.8
Central and southern Iowa, 28 tests						
Adams	34.6	1.8	Sept. 21	41	39.0	22.1
Ford	38.2	1.7	Sept. 23	41	39.5	21.6
Lincoln	36.1	1.9	Sept. 24	41	39.8	21.8
Clark	39.4	1.8	Sept. 30	42	40.1	21.5

[1] Lodging scores range from 1 (with almost all plants erect) to 5 (with almost all plants down badly). [2] Chemical composition determined on a moisture-free basis.

Left: Chippewa—best for northern Iowa. Center: Ford—best for central Iowa. Right: Clark—best for southern Iowa. All three photos were taken in early September at Ames. Note that Chippewa was nearly mature but shorter than either of the others. Ford was just beginning to yellow its leaves—another 3 weeks to maturity. Clark was green, with unfilled pods at the top—another 4 weeks to maturity. Neither Chippewa nor Clark were grown in their best area of adaptation. All three varieties, however, are closely related and were selected from the same initial backcross.

different soybean-producing areas in the United States.

Testing and the initial increase of Ford were done cooperatively by a number of state experiment stations in the North Central Region and the U. S. Regional Soybean Laboratory. Participating in the regional laboratory are the crops research division, Agricultural Research Service, USDA, and 24 individual state experiment stations.

How It Looks

The plant and seed characteristics of Ford are very much like those of Lincoln, one of Ford's parents, and somewhat similar to those of Clark, Ford's "sister." Both Clark and Chippewa resulted from the same initial cross as Ford. All three have "three-quarters blood" of Lincoln. Ford, however, matures a week earlier than Clark and more than 2 weeks later than Chippewa.

Ford is medium tall and usually erect. It has brown pubescence (hairs) on the stem and pods like Lincoln, but, unlike Clark and Chippewa, which have purple flowers, Ford has white flowers as does Lincoln. Ford has a black hilum (seed scar), and its nearly round yellow seeds are slightly larger than those of Lincoln or Adams.

Seed

Ford is being increased and distributed to seed growers in Iowa, Nebraska and South Dakota for 1959. It will be 1960 before seed will be generally available. Enough seed was produced in 1958 to permit an initial distribution for seed increase in 52 Iowa counties. The shaded portion of the map shows where Ford is best adapted in Iowa and where seed will be distributed for increase in 1959.

The seed distribution plan will be similar to that used for other new varieties of soybeans and oats—through county seed distribution committees. The purpose of this method of distribution is to make large quantities of reasonably priced, high-quality seed of new varieties available to Iowa farmers in the shortest possible time.

Ford's record indicates that it's another step forward for soybean producers in reducing production costs per bushel. Seed will be limited for 1959 but will be more generally available in 1960.

Predicts Pure Amino Acid Pig Supplement

PROTEIN requirements for swine will someday be expressed on the basis of amino acid requirements, and this will result in an actual lowering in the amount of protein that will be supplied for maximum growth, says Professor W. M. Beeson, Purdue University, one of the world leaders in teaching and research in the field of animal science.

Along this line, Professor Beeson predicts, "In the next half century the protein needs of pigs will be thought of in terms of supplying the correct amounts and proper balance of essential amino acids. Pig diets will be supplemented with pure amino acids."

Professor Beeson has put into print in the Journal of Animal Science his predictions for the next 50 years.

Says Professor Beeson, "It is not too much to expect that in the next 50 years we will be able to supply the supplementary protein needs of ruminants from non-protein synthetic scources.

"As we discover the nutrients essential for maintaining and increasing the bacterial population (in the paunch), then we will be able to utilize fiber more in the fattening and growing rations of cattle and sheep, and also for milk production."

Discussing feeding animal fat to livestock, Beeson brushes this aside with, "Except in certain high energy rations, fat will tend to play a smaller part in the formulation of livestock feeds because grain products are usually a cheaper and more efficient source of energy."

Beeson also notes:

"Pelleting has a bright future in the feeding of farm animals—reduces bulk, prevents dustiness, permits self feeding, is well adapted to automation, eliminates sorting, permits the simultaneous feeding of nutrients, cuts down digestive disorders.

"Algae may furnish protein and other nutritional factors.

"Microbial and bacterial life will be employed as synthesizing agents for protein, vitamins, and unidentified growth factors.

"New crops and varieties that are not known or used today will be used as livestock feeds. Many of our present grain and forage crops will be replaced."

Fifth of a Series

A. C. DALE (right), professor in agricultural engineering, and Ken Jordan, graduate student, show several boards made from ground soybean stems. Jordan, who supervised this research project, is holding one of the hard boards. The thick board in the bottom of the picture can be used for insulation.

Soybean Research at Purdue

Because of the growing importance of soybeans to Indiana's agriculture Purdue University carries on extensive research projects to find improved production, marketing, and processing methods, as well as new uses for soybean products.

By **GEORGE MORTON**

Purdue Agricultural Information Staff

SOYBEAN production in Indiana, as for the nation, has been skyrocketing during recent years. Before 1910 soybeans were almost unheard of in Indiana. From 1910 to 1920 the late professor A. T. Wiancko, head of the agronomy department at Purdue University, interested farmers in growing soybeans by giving packets of seed to Purdue winter agricultural short course graduates. Each of the graduates planted the seed experimentally.

Since that meager beginning, Indiana has grown into the fourth largest soybean producing state in the nation. Indiana farmers during the 1957 season planted 2,163,000 acres of soybeans valued at $111,287,000. The soybean industry in Indiana is second only to corn.

Protein and Oil

Most soybeans today are produced for the protein and oil markets—protein for livestock feeding and oils for food and industrial uses. At Purdue the biochemistry department is working in conjunction with soybean breeders to develop beans with high quality oils and protein. The U. S. Regional Soybean Laboratory at Urbana, Ill., runs analyses on beans from plants produced in the breeding program, and the plant breeders choose plants for desirable chemical composition of the bean, as well as favorable plant characteristics.

Since oil is an important product of the soybean, chemists and plant breeders are striving constantly to produce beans with higher percentages of oil. They also look for beans with the proper acids for food and paint or industrial uses. A high percentage of unsaturated acids adapts soybean oil for drying oil or industrial usage. A high content of linoleic or unsaturated acid is desirable in human nutrition because it tends to prevent hardening of the arteries.

For Building Materials

Agricultural engineers at Purdue are developing a new industrial use for the soybean crop—using soybean stems collected after combining to make boards for structural purposes. The engineers grind the stems

EXTENSIVE root proliferation of the soybean plant resulting from placing nitrogen and phosphorus in a band together. The increased root surfaces enhance phosphorous uptake in the plant.

through a one-fourth-inch screen in a hammermill. Then the fine straw is mixed with adhesive materials—from 2% to 20%.

Heat is applied to the mixture, and as the temperature rises the adhesive sets, forming the board. Usually a temperature of about 150° centigrade is required, depending on the type of adhesive used. Boards are formed with pressures of from 40 to several hundred pounds of pressure per square inch. Boards constructed from soybean stems range from insulating-boards to hard-boards, depending on the density and amount of adhesive used.

Breeding Started in 1926

Breeding or actual hybridization work was started at Purdue in 1926 by Dr. G. H. Cutler. He, along with R. R. Mulvey, G. P. Walker, M. O. Pence, and K. E. Beeson, laid the foundation work for soybean expansion in Indiana. These men began experimental work on Purdue farms that produced information of sound soybean growing practices for Indiana farmers.

The U. S. Regional Soybean Laboratory was established in 1936, and A. H. Probst was appointed USDA agent to develop the Indiana soybean breeding program. Establishment of this laboratory has made possible an extensive exchange of breeding materials, ideas, and techniques. Today there is free and unlimited exchange of breeding material among 25 cooperating states and Canada. In Indiana before 1946 there was limited knowledge of diseases affecting soybeans. At that time there was a major upswing in Indiana soybean breeding when Kirk Athow, plant disease specialist, started assisting Probst in his breeding program.

Ten Objectives

Plant breeders outline 10 objectives: high yield, high oil content, high protein content, lodging resistance, maturity to fit rotations, disease resistance, shattering resistance, desirable plant height, improved seed quality, and high podding to assure complete harvesting. In meeting these objectives, all breeding techniques applicable to self-pollinated plants have been and are being used. Now the plant breeders at Purdue are in the second and in some instances the third cycle of breeding and are releasing new varieties.

The first soybean variety developed in Indiana through hybridization was Gibson released in 1942. Today approximately 95% of the soybean acreage in Indiana is planted to five varieties: Hawkeye, Harosoy, Lincoln, Clark, and Blackhawk. The varieties are listed in order of importance, but none of them meet all objectives set forth. These will soon be replaced by new and better varieties developed in the breeding program. Even the new cycle lacks some desirable characteristics, especially disease resistance. The new group is currently being modified to include resistance to some of the more serious diseases in Indiana.

The newer varieties in development have higher yields, greater lodging resistance, and earlier maturity dates which better fit the rotational desires of Indiana farmers. Plant breeders evaluate yield components—seed size, seed number, seeds per pod, pod placement, etc.—of existing varieties in order to use the best characteristics of each to develop one high-yielding variety. Two new varieties are being multiplied now for sale to certified seed growers. Purdue operates three breeding centers and six testing or evaluation centers throughout the state which include major types of soybean environments.

Diseases being Combated

Studying diseases of soybeans is a major activity in the breeding program. All varieties and strains of soybeans are evaluated for the following diseases: frogeye leafspot, brownspot, phytophthora root rot, downy mildew, stem canker and bud blight. Athow studies the disease organisms, how they spread in the plant, how they reproduce, and how they spread among plants. Both Athow and Probst evaluate and eliminate susceptible strains of beans and also study inheritance of the diseases.

Frogeye leafspot, a serious disease in southern Indiana, has been eliminated by the development of resistant varieties. Resistance to phytophthora root rot and brownspot is being bred into existing varieties. Strains resistant to Indiana races of downy mildew are being developed. Breeders are studying the time and place of infection and the source of inoculant of stem canker and bud blight. For both of these diseases breeders don't have resistant varieties; therefore, they cannot control the diseases through breeding until resistant strains are found. Studies of insect transmission and seed transmission of bud blight are under way.

Inheritance studies are being made on plant pubescence, leaf types, etc. X-ray has been used to produce new types of plants. X-ray causes mutations, and the mutation, a change in the plant, shows up in the progeny of the treated plant. Breeders must pick out the plants that have acquired favorable characteristics through mutational changes.

Soybean Fertilization

Soybean fertilization research at Purdue is being carried on by A. J. Ohlroggee, S. A. Barber, and S. R. Wilkinson. These men are initiating projects to derive information on how soybeans respond to fertilizers. If the farmer is operating a sound fertilization program in Indiana, Purdue agronomists do not recommend a direct fertilization program for soybeans. If fertility levels are medium or higher, no extra fertilizer is needed. Fertilizer on some potash deficient sandy soils will increase yields greatly—15 to 25 bushels per acre, but most low fertility silt loam soils will respond very little to direct fertilization.

Manganese deficiency shows up in soybeans in many parts of Indiana. If low dark colored soils have a PH above 6.2 and a manganese deficiency, soybean yields will be reduced. The best correction for this is spraying the plant just after the deficiency shows with a manganese solution or applying manganese with the row fertilizer at planting time.

Present Experiments

Agronomists are now experimenting with minor elements, using high levels of these elements to see if they can get substantially higher yields of soybeans per acre. They are using the elements singly, lumped together,

50% more gain, 25% less feed per pound of gain on newer poultry rations.

and in various combinations. The elements are copper, zinc, manganese, molybdenum, magnesium, iron, and boron. Also under study is the effect of nitrogen on the phosphorous uptake of the soybean plant. Using radioactive phosphorus, the scientists found that for fertilizer to be taken up readily by the plant, there must be extensive root surfaces, and more root surfaces develop if nitrogen and phosphorus are put in a band together.

Another project under study is using high levels of nitrogen, up to 600 pounds of elemental nitrogen or 1,800 pounds of ammonium nitrate per acre, to see if nitrogen is a limiting factor in yield. Foliar feeding, the plant taking fertilizer through the leaves, is being studied. As soon as a deficiency symptom shows, the plant is sprayed with an elemet to correct the deficiency. This type of fertilization gives quick response and more economical use.

Marketing Research

The agricultural economics department is participating in a North Central States research project. The study is of the portion of soybean transportation done by truck and the destination of the soybeans. Preliminary calculations indicate that most Indiana soybean shipping is done by truck.

Another departmental project is research on soybean grading and pricing at local elevators and terminal or processing markets. The objective of this project is to determine what differences exist in quality of soybeans during the harvest season, how accurately tests are made, and reasons for variations in test results.

Poultry Feeding

Raw soybeans are rarely fed today. The farmer makes more selling his soybeans and buying soybean oil meal. Also the soybean before it makes a good livestock feed must be roasted. The oil is extracted from the bean, and the fiber of the bean is cooled to make soybean oil meal. Today even though the oil is more valuable dollarwise, the protein or oil meal market is holding up the demand for soybeans. Soybean oil meal is generally the most economical protein feed in the Midwest.

Purdue University has been a leader in developing poultry rations using soybean oil meal as the protein supplement. As early as 1918 the late A. G. Philips of the Purdue poultry department developed a project comparing animal protein with soybean oil meal. He found that certain minerals were lacking when only plant protein was used. In 1940 C. W. Carrick continued Philips' work by using minerals and synthetic vitamins to feed with soybean oil meal. He found that soybean meal actually had better amino acid content than animal proteins, and that there was the same growth with both proteins. Soybean oil meal gave the best results if supplemented with vitamins and minerals.

Supplements needed with soybean oil meal for starting and growing rations are: phosphorus, calcium, iodized salt, manganese sulfate, antibiotics, riboflavin, calcium pantothenate, niacin, vitamin E, and vitamin D. Adding synthetic materials is a sound practice because the feeder knows exactly what is going into the ration. Soybean oil meal gives the best protein because it is low in fiber, has a good amino acid balance, and is free from a harmful high mineral content which stunts growth. Carrick feels that soybean oil meal is the greatest improvement in poultry feeding developed in the past 50 years.

Recently a 1925 Purdue chick ration was fed simultaneously with a 1953 ration. The new ration gave a 50% greater gain and required approximately 25% less feed per pound of gain. Soybean oil meal was a major factor in this striking difference in feed efficiency.

Dairy Feeding

J. W. Wilbur and other dairy specialists at Purdue have done a great deal of basic research in soybean feeding. They have found that if ground soybeans make up over 25% of the ration, there is a slight increase in butterfat because of the high oil or fat content of soybeans—18% to 20%. However, they also found that raw soybeans apparently suppress the transference of carotin or vitamin A from the feed ration to butter.

The latest research with soybean oil meal in dairy feeding shows that the meal increases a cow's intake of low quality roughages. An increase up to 10 pounds of milk per day has been achieved when feeding 4 pounds of soybean oil meal; however, the effect diminishes rapidly with higher quality forages. C. H. Noller of the department feels that soybean oil meal as a source of protein is one of the most important factors in developing low cost dairy rations.

Beef and Swine Feeding

The Purdue animal science department fed ground soybeans to hogs in 1905. Starting about 1912 the department ran studies on roasting the beans to improve their nutritional value. During the 1930's the department initiated work on the nutritional value of soybean oil meal for hog feeding. Comparing oil meal with meat scraps and tankage, they found a lack of certain minerals and vitamins. In 1938 the animal nutritionists came out with a supplement hog ration that is considered an excellent ration today—Purdue Supplement 5. This ration is 40% soybean oil meal.

Recent studies have shown that soybean oil meal can profitably be used as a source of protein for hogs, cattle, and sheep when properly supplemented with vitamins, minerals, and antibiotics. Purdue's most popular beef ration, Purdue Supplement A, developed in 1948, is 65% soybean oil meal.

The United States inherited soybeans from the Far East, an area of extreme nutritional deficiency. Research and free enterprise have allowed us to turn this borrowed product into a crop plentiful enough to feed our nation and part of the world.

Corn-Soybean Rations for Hogs Sometimes Best

SWINE-FEEDING research at the University of Illinois has shown that corn-soybean rations for hogs work best for some Illinois growers.

Soybean meal works well on Illinois farms because it is easy to get and store in bulk, reports D. E. Walker, extension livestock specialist of the UI College of Agriculture. It fits well into grinding-mixing operations that can be completely automated.

Simple corn-soybean meal rations supplemented with vitamins, antibiotics and minerals put fast, economical gains on the hogs in the tests, Walker says.

Gains in this experiment were faster from the complete corn-soy ration than from more complicated, more expensive rations containing meat and fish byproducts, Walker says. Fast gains and lower protein cost at the same time considerably lowered the cost of gains.

New Organizations Stimulate Markets

THE SOYBEAN CROP has not been free of pitfalls, H. W. Huge, vice president, Central Soya Co., Inc., Fort Wayne, Ind., told the annual meeting of the Midsouth Soybean and Grain Shippers Association in Memphis.

"In January 1954 a group of growers and processors met in Washington with the U. S. Department of Agriculture to discuss a recommendation facing soybeans. It was feared that the high soybean price, and acreage limitations affecting other crops, would so stimulate planting as to produce a crop as high as 300 million bushels.

"It had, therefore, been suggested that acreage limitations be applied to prevent what was feared would be a burdensome overproduction of soybeans. Fortunately, the views of men of vision prevailed—men who believed that soybean horizons were not limited to less than 300 million bushels. I am pleased to see men in this meeting today who participated in that decision. Men of vision and courage, who visualized broad horizons for U. S. soybeans.

"The crop that year totalled 341,075,000 bushels, and it wasn't enough. In both 1956 and 1957 the crop was more than 50% over the feared burdensome figure, and we are finally experiencing approximate equilibrium. One might reflect that that incident in January 1954 marked one of the crossroads of decision in U. S. soybean history. Soybeans remained free from the 'economy of scarcity' philosophy. Since that time, soybean production in this Midsouth area has tripled.

"U. S. soybeans and soybean oil, in addition to supplying domestic needs, are now providing food for persons abroad in an amount exceeding the total U. S. production of these products of less than 20 years ago. But we have only scratched the surface in that direction.

"The Soybean Council of America, which has done such excellent work, and the recently formed Vegetable Oil Export Corp., are dedicated to stimulating markets abroad and thereby improving the foreign diet, and incidentally increasing the market for U. S. soybeans."

Florida Soybean Queen

FLOWERS for the Soybean Queen. Gov. Leroy S. Collins of Florida proffers flowers to Miss Ruth Ann Rockwell, crowned Queen of the Soybean Festival of the Pensacola Interstate Fair Oct. 20. The Fairhope, Ala., miss garnered a kiss from the state's chief executive and a week-long vacation in Miami, Fla., and Havana, Cuba, in edging out four other finalists. The fair association sponsors the pageant.

Margarine Production Ahead of Butter in '58

MARGARINE production this year will exceed butter production for the first time in history, the U. S. Department of Agriculture reported Nov. 5.

In its quarterly publication, "National Food Situation," the USDA estimates 1958 margarine production at 1,575 million pounds; butter at 1,515 million pounds. This would represent an 8% increase over last year's record margarine production of 1,461 million pounds and a 2% drop from the 1957 butter output of 1,549 million pounds.

"Margarine use per person in 1958 will set a new record, while that of butter will change little," the report states. According to the USDA estimate, civilian per capita consumption of margarine this year will be 9.1 pounds, compared with 8.5 pounds for butter.

S. F. Riepma, president of the National Association of Margarine Manufacturers cited "good indications that the margarine upturn will continue to be powered by sufficient supplies of ingredient oils, increasing acceptance of margarine among younger families, and premium-brand promotions."

Thailand Produces a Million-Bushel Crop

THAILAND'S 1958 soybean crop is expected to about equal the 1957 outturn of 1,009,000 bushels, though current lower prices may influence farmers to cut back on planting, according to USDA's Foreign Agricultural Service.

The first crop was harvested in October and November, while the second crop was not planted until November. The record production of 1957 was 22% over the 1956 level, and 45% greater than the 1950-54 average.

Wholesale prices of soybeans declined from the January 1958 average of $4.29 per bushel to the August average of $3.61.

Mellorine Production A Record This Year

U. S. Department of Agriculture says in a special report that production of mellorine and similar frozen desserts tripled from 1952 to 1956 (from 11 million gallons to 33 million) but dropped to 32 million gallons in 1957.

However, the outlook for this year is a new record of 36 million gallons.

Sale of mellorine is legal now in 12 states—Alabama, Arkansas, California, Illinois, Louisiana, Missouri, Montana, Nevada, Oklahoma, Oregon, South Carolina, and Texas.

DRS. C. W. HESSELTINE and A. K. Smith (left to right) of the Northern Utilization Research and Development Division discuss specimens from the Division's collection of microorganisms with Mr. Tokuji Watanabe and Dr. Kazuo Shibasaki, Japanese scientists, who have started a year's research at the Division. Working in the fermentation and oilseed crops laboratories, the Japanese will study ways to make traditional Japanese foods from U. S. soybeans.

JAPANESE-AMERICAN SOYBEAN INSTITUTE

Housewives Want More Demonstrations

By SHIZUKA HAYASHI

Managing Director, Japanese American Soybean Institute, Nikkatsu International Bldg., No. 1, 1-Chome Yurakucho, Chiyoda-Ku, Tokyo, Japan

STAFF OF the Japanese American Soybean Institute and Volorus Hougen, fats and oils division, Foreign Agricultural Service, U. S. Department of Agriculture, observed one of the kitchen car demonstrations, which was held in Ikaruga, a small town halfway between Osaka and Nara City. The kitchen car was placed in an open space in a suburb.

After a brief opening speech by the prefectural government official, the demonstration was carried out by an experienced nutritionist who is in charge of the kitchen car during the whole period of its activity in Nara Prefecture.

Before the demonstration the nutritionist gave a lecture on the nutritive values of soybeans, emphasizing the superiority of their oil and protein content. She said the oil and protein deficiency of housewives can be easily supplemented by soybeans that can be bought at low cost. Her explanations were largely in accordance with the educational information in the textbook compiled by the Welfare Ministry. Her explanations were in terms readily understood by the attendants. She demonstrated the preparation and cooking of three different dishes with the use of soybean products and oil. Mr. Hougen, who was in Japan as one of a three-man team making a fats and oils survey in the Far East, gave a few words of encouragement that were welcomed by the housewives.

In spite of a rain in the morning the number of women—mostly apron-clad housewives wearing wooden sandals from the vicinity, some with children on their backs—was counted at about 100.

After the demonstration was over we visited the home of Mr. Yoshida who is head of the Women's Association in that area. There we had a chance to talk freely with government officials and housewives. We learned that the cooking demonstrations with the kitchen cars are so welcomed by the housewives that they are asking for repeated demonstrations throughout the year.

We also learned that now six prefectures, convinced of the effectiveness of kitchen car promotion, have constructed kitchen cars at the expense of the respective prefectural governments. We were told that in Kanagawa Prefecture the housewives groups are so eager to have a kitchen car of their own that they have collected contributions from the various groups within the prefecture and have asked the prefectural government to contribute the balance of the expenses required in building a kitchen car. As a result, Kanagawa has set aside a special budget for a kitchen car that is now under construction.

Mr. Nakai, chief of the public health section of Nara Prefecture, who was at this meeting, expressed his appreciation to the U. S. government for supporting such a program that greatly encourages the housewives. He said the Nara Prefecture government has decided to promote consumption of soybeans because of their low cost and superior nutritional values, and because the people in the prefecture lack protein.

In the afternoon we visited the health center located in the city of Takata where a cooking demonstration was in progress. Dr. Choja, chief of the health center, states that in his particular area skin injuries generally took an extraordinarily long period to heal. Investigation has revealed that this is due to the fact that the people in his area lack protein and not because of a deficiency of vitamins. For this reason he is now encouraging people to eat more soybean products.

As we entered the hall he was lecturing on the important values of soybeans and giving technical figures on the various amino acids contained in soybeans. He explained that the lysine content in soybeans is abundant and is obtained at very

NUTRITIONIST demonstrates cooking of soybean dishes for housewives at Ikaruga. USDA's Val Hougen is in center background and Mr. Hayashi is in left background.

low cost while the lysine content is much less in rice. He emphasized that such valuable nutrients should be taken daily in our diet.

Soybean products used in the cooking demonstration included natto, kinako, tofu, soy milk, miso and of course soybean oil. The writer asked one of the women in attendance whether she would prepare such dishes at home. He was told it was for this reason that she usually attended the meetings in the health center.

Japanese Scientists Start Work at Peoria

TWO JAPANESE scientists, Kazuo Shibasaki and Tokuji Watanabe, have arrived at the Northern Utilization Research and Development Division, Peoria, Ill., to start a year's search for ways to increase the use of U. S. soybeans in Japanese foods. W. Dayton Maclay, director of the Division, a part of the Agricultural Research Service, said the studies will be carried out under an agreement between the ARS and the Foreign Agricultural Service of the U. S. Department of Agriculture; and the American Soybean Association. The reasearch is part of USDA's utilization research and development program to find new outlets for farm crops.

Dr. Shibasaki and Mr. Watanabe will study the use of U. S. whole soybeans in making tofu and miso, traditional Japanese foods. Dr. A. K. Smith of the Northern Division spent several months in Japan last year in a study of the basic problems involved. He reported that the Japanese prefer U. S. soybeans for oil mill processing, the chief use of the crop in the United States. About half of the Japanese use of soybeans, however, is making traditional food. Only a limited quantity of U. S. soybeans are used in this way. Because U. S. and oriental soybeans differ, present Japanese food-processing methods do not produce the best possible miso and tofu from U. S. beans.

The Japanese and Northern Division scientists hope to find processing methods that will produce, from U. S. soybeans, miso and tofu of high quality by Japanese standards.

Dr. Shibasaki is an associate professor in the department of agricultural chemistry at Tohoku University, Sendai, Japan, and an adviser of Miyagi Prefecture Miso and Shoyu Industry Association.

Mr. Watanabe is chief of the grain processing section of the Food Research Institute, Ministry of Agriculture and Forestry.

SOYBEAN COUNCIL OF AMERICA, INC.

Possible Soy Market in Austria

THERE is a good possibility of selling U. S. soybeans and soybean products in Austria. And the possibility of a soybean market development project for Yugoslavia should be investigated, according to Howard L. Roach, president of the Soybean Council of America, Inc., Plainfield, Iowa.

Mr. Roach was in Europe Oct. 14-Nov. 9. During this period he and Fred Marti, European regional director for the Council, visited Israel and Germany as well as Austria. They conferred with government oficials and trade representatives in those countries concerning possible market development projects on U. S. soybeans and soybean products to be carried on jointly by the Soybean Council, the U. S. Department of Agriculture and trade groups in the countries concerned.

Mr. Roach quoted Michael Jacober, Jacober & Co., jobbing firm, to the effect that there is much interest in both Austria and Yugoslavia in soy products. And Oscar J. Hein reported that firms representing 80% of the feed milling and baking industries in Austria are interested in the possibility of working with the Council.

Just now new bread standards are being established for Austria. The government is working with a committee of bakers on the new standards. Inclusion of soy flour will be recommended.

At Hamburg, Germany, Mr. Roach and Dr. Marti conferred with representatives of German Oilseed Millers on the market development project for which agreements have already been signed.

Roach also went to England for conferences on feed grain promotion in the United Kingdom. He noted that the broiler business is the best possibility for increased consumption of feed grains in the United Kingdom. It is estimated that about 45 million birds will be produced in 1958, less than one per person. It is believed this could be expanded to 300 million birds by 1963.

A survey of the market potentials in the United Kingdom is being considered.

Roach also went to the general and Italian offices of the Council in Rome where he reviewed the market development projects in progress in Spain and Italy.

Ersel Walley Howard Roach

Roaches, Walley, to New Delhi Solo Fair

SOYBEAN COUNCIL president Roach left Waterloo, Iowa, by plane Nov. 22 bound for Asia. He was accompanied by Mrs. Roach.

The Roaches were joined in Tokyo by Ersel Walley, Fort Wayne, Ind., chairman of the American Soybean Association market development committee.

Roach and Walley will be in charge of the Soybean Council's soybean exhibit at the U. S. solo fair in New Delhi, India, Dec. 10 through Jan. 10.

The Council now has a three-man team making a survey of India and other Asiatic countries.

On the return trip the Roaches and Mr. Walley will spend some time in Turkey, Greece, Italy and Spain in connection with Council business. They will arrive home about Feb. 1.

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1958 Soybean Crop Summary

Based on reports by Soybean Digest crop reporters

	Total yield compared with 1957	Oil content	Moisture content	Foreign material	Part of crop stored
SE, S Central Ark.	down 1 bu.	.....	.....	.....	sizable
Blytheville, Ark.	down 2 bu.	.....	14%	2.3%	all possible
Del.	up 37%	.....	13%	2%	.....
Stanford, Ill.	up	lower	high	high	60%
Farmer City, Ill.	same	¾% under av.	12%	1½%	75%
Shelby Co., Ill.	less than expected	.....	12½% to 13%	not much	10% to 25%
W Central Ill.	up 10% to 15%	.....	12% to 14%	1% plus	40% to 50%
Ill.	up 20 million	18.3%	12¾%	2%	40%
SW Ill.	up 30%	.....	13%	3%	50%
Central Ill.	same	.....	13%	more	52%
Champaign, Ill.	up	sl. lower	normal	lower	record
Decatur, Ill.	up 5%	.....	12.2% to 14%	okay	90%
Edgar Co., Ill.	up	.....	12½%	1½%	50%
Christian Co., Ill.	up 5%	.....	average	average	50%
Central Ill.	up	sl. down	.....	.....	75% to 80%
McLean Co., Ill.	down	okay	12½ to 13%	1% to 1½%	75%
W Central Ill.	same	.....	13%	.....	20%
Quincy, Ill.	up 25%	up .2%	12%	2%	60%
Tippecanoe Co., Ind.	up 10%	same	10% to 13%	normal	50% to 60%
Central Ind.	up 10% to 20%	.....	.....	.....	.....
NE Ind., SW Ohio	up 10%	.....	low	lower	70%
S Central Ind.	up 5%	.....	average	2% to 8%	30%
Mason City, Iowa	up 5%	down 3% (17%)	11½%	2%	80%
Webster Co., Iowa	up 20%	.....	9%	under 1%	99½%
Adair, Iowa	down 2 to 5 bu.	low	9% to 13%	.....	75%
Calhoun Co., Iowa	same	normal	11%	clean	95%
Belmond, Iowa	same	up 3%	11%	2%	90%
Kans.	double	normal	dry	low	50%
SE Kans.	double	18%	11% to 13%	1½%	30% to 40%
S Central Kans.	up 800%	19% to 20%	9% to 14%	2%	20%
W Ky., S Ind.	up 15% to 18%	down	higher	high	50%
NE La.	up 10%	good	okay	.....	15% to 20%
E Carroll Parish, La.	up 10%	okay	12% to 15%	not bad	few
S Central Minn.	same	high	9% to 11%	not serious	40%
SE Minn.	same	good	very low	2%	95%
SW Minn.	down	18%	10% to 12%	2%	70%
S Central Minn.	down 15% to 20%	normal	low	low	50%
Brown Co., Minn.	down 10% to 15%	.....	11% to 12%	.....	90%
SW Central Minn.	up	.....	low	fair	90%
S Central Minn.	down 25% to 35%	.....	low	not bad	50%
Sharkey Co., Miss.	up 15%	.....	11% to 12½%	down	20%
Lincoln Co., Mo.	up 15%	.....	.....	.....	50%
Mo.	up 15%	good	high to okay	good	.....
N Central Mo.	lower	.....	10% to 12%	not high	80%
SE Mo.	up 50%	fair	11%	3%	10%
SE Mo.	up 50%	average	very low	average	40%
Mexico, Mo.	up 40% to 50%	20%	varied	2 to 3%	65%
Audrain Co., Mo.	up 75%	.....	low	low	60%
St. Joseph, Mo.	up 10% to 15%	same	12%	2½%	25% to 35%
SE Mo.	up 25%	.....	12½%	2½%	35%
E N. C.	same	.....	.....	.....	5%
N. C.	same	.....	.....	.....	10%
N. C.	sl. up	.....	low	good	few
Amenia, N. Dak.	10 bu. av.	low	12%	yes	90%
Union Co., Ohio	up 2 to 3 bu.	.....	12% to 13%	.....	60%
Kenton, Ohio	up 2 to 3 bu.	.....	under 13%	plenty	.....
Ohio	up	okay	some high	varies	50% to 75%
Van Wert Co., Ohio	down 5% to 10%	good	high	high	90%
W Central Ohio	same	average	good	low	70%
Central, N Ohio	up	same	12%	1½%	.....
W Central Ohio	up 10%	.....	12% to 14%	4%	70%
Ohio	.....	down 1%	13%	varies	.....
Okla.	.....	good	average	average	.....
Calhoun Co., S. C.	up 5%	.....	okay	average	60%
Lake Co., Tenn.	up 20%	18%	13½%	3%	50%
E Ark., Tenn.	.....	sl. up	13% to 16%	1% to 3%	10%
Lubbock, Tex.	low	.....	.....	.....	100%
Tidewater, Va.	up 5%	.....	13%	1%	5%
SW Ontario	same	may be low	low	more	20%
Middlesex, Ont.	up	good	low	little	20%

Based on October and November reports. As many reports are local, they may or may not check with state reports. All comparisons are with 1957. Reports on storage in many cases are forecasts rather than a report of the amount actually in store at the time.

CROP REPORT

USDA Raises Crop Estimate Another 3 Million Bushels

HARVEST of the nation's largest soybean crop was completed except for a small acreage in the South on Dec. 1.

The 1958 crop was estimated at 575 million bushels as of Nov. 1, by the U. S. Department of Agriculture, up 3 million bushels from the October report, and almost 100 million bushels above a year ago.

The national average of 24.6 bushels is also a new record, and compares with 23.1 bushels last year, the previous record.

The harvesting season was extremely favorable and combining was practically over in most of the main soybean area by Nov. 1. Harvest was also well advanced during November in the South and Southeast, in sharp contrast with a year ago when harvest was seriously delayed by wet weather.

In the North Central States, the major producing area, yields are generally at record or near record levels except in the northwestern corner of the area. Minnesota and especially the Dakotas were hit by dry weather which caused considerable damage.

The Illinois yield of 28.5 bushels

SOYBEANS FOR BEANS (NOVEMBER 1958) CROP REPORTING BOARD, AMS, USDA

	Yield per acre		Production	
	1957	Preliminary 1958	1957	Preliminary 1958
	Bushels		1,000 bushels	
N. Y.	18.0	16.0	108	80
N. J.	14.0	23.0	616	989
Pa.	13.0	22.0	221	352
Ohio	23.0	26.5	32,683	38,876
Ind.	24.5	27.0	52,994	61,830
Ill.	25.5	28.5	126,837	147,772
Mich	22.0	22.0	5,192	6,050
Wis.	17.0	15.0	1,717	1,785
Minn.	21.5	17.5	54,804	53,830
Iowa	26.0	26.0	72,592	78,988
Mo.	21.5	27.0	35,196	53,325
N. Dak.	18.5	14.0	3,404	3,710
S. Dak.	16.5	12.0	3,069	3,036
Nebr.	27.0	31.0	3,699	6,014
Kans.	11.5	23.0	2,461	7,567
Del.	17.5	24.0	2,572	3,888
Md.	18.5	23.0	3,496	4,324
Va.	20.0	23.0	4,960	6,187
N. C.	21.0	23.0	8,736	9,476
S. C.	15.5	15.5	5,100	5,502
Ga.	14.0	11.5	1,400	1,265
Fla.	23.0	24.0	1,035	1,104
Ky.	20.5	24.0	2,665	3,360
Tenn.	22.5	25.0	4,208	5,825
Ala.	20.0	22.0	2,440	2,816
Miss.	19.0	21.0	11,685	15,498
Ark.	23.5	25.0	32,500	46,625
La.	21.0	26.0	2,499	3,120
Okla.	17.0	22.0	510	924
Texas	26.0	32.0	442	928
U. S.	23.1	24.6	479,841	575,046

per acre equals the record set in 1956. Record yields are reported for Ohio, Indiana and Missouri, while the Iowa yield is only one-half bushel less than the record.

In the South Atlantic area, dry weather late in the season reduced yields in South Carolina and Georgia but these losses were more than offset by gains in Virginia and North Carolina.

A summary of our reports would indicate moisture content of 1958-crop soybeans averages higher than in most recent years, though not so high as last year. Some soybeans were reported to have gone into storage with too high moisture content for safe storage in Illinois.

The oil content may be some lower than last year, early reports would indicate.

Foreign material content appears to be considerably lower than last year—in fact, this may be the cleanest crop on record. Harvesting troubles were few, and more combines were equipped with cleaners than ever before.

Soybeans were apparently being stored in record numbers, especially in the Midsouth, and it appeared that a new record volume will go into the support program.

12% Increase in World Soybean Crop

WORLD PRODUCTION of soybeans in 1958 is forecast at 984 million bushels, a new record for the fifth successive year, according to the U. S. Department of Agriculture. This forecast represents a 12% increase from the previous record in 1957 and a 44% increase from the 1950-54 average.

The estimated 108-million-bushel increase from last year is due primarily to the further sharp increase in U. S. production, although Mainland China's crop is believed to have increased somewhat. The United States and China-Manchuria produce over 90% of the world's soybeans and export nearly all the beans and oil that move in world trade. Soybean production in the Free World accounts for over 60% of the estimated total world output.

Canada's production, now estimated at about 6.5 million bushels, is slightly (less than 1%) below last year's record crop but three-fourths larger than the 10-year (1947-56) average. Acreage planted to soybeans was up 3% from 1957. The bulk of the crop is grown in Ontario, but this year 7,000 acres were planted in Manitoba (4,000 acres in 1957).

Soybean production in China-Manchuria is believed to have increased this year. Official Communist figures show a decline in acreage from 28 million acres in 1957 to 23 million in 1958 but a substantial gain in yields, so that total output probably exceeded last year's in spite of the reduced acreage. On the basis of tentative data, production is estimated unofficially at around 350 million bushels, compared with an estimated 335 million last year.

Japan's 1958 soybean crop is expected to be 5% below last year's 16.9 million bushels. Yields are down slightly and acreage was down almost 5%. Crops in Taiwan and Thailand are expected to be at 1957 record levels. Data on Indonesia, a relatively minor but still important producer, are not yet available.

This year's crop in Brazil may be somewhat less than the alltime high of 4.5 million bushels in 1957. While soybeans have been a minor crop in Argentina, about 380,000 bushels were grown in 1957.

Some decline in European 1958 soybean crops is indicated. Reliable data are not yet available.

Soybean production in Africa is relatively unimportant. Nigeria is the major producer, but small quantities are grown in the Belgian Congo, British East Africa, and the Union of South Africa. The bulk of the Nigerian crop is purchased by the Nigerian marketing boards for export.

SOYBEANS: ACREAGE, YIELD PER ACRE, AND PRODUCTION IN SPECIFIED COUNTRIES AND THE WORLD, ANNUAL 1956-58[1]

Continent and country	Acreage[2]			Yield Per Acre			Production		
	1956	1957	1958[3]	1956	1957	1958[3]	1956	1957	1958[3]
	1,000 acres			Bushels			1,000 bushels		
North America:									
Canada	243	256	263	21.8	25.5	24.7	5,301	6,524	6,490
United States[4]	20,642	20,738	23,367	21.8	23.1	24.5	449,446	479,841	572,586
South America:									
Argentina	1	19		14.9	20.0		19	380	
Brazil	200	241	200	21.2	18.5	22.0	4,223	4,464	4,400
Europe:									
Italy	1	1		22.5	27.3		15	22	
Yugoslavia	7	15		12.6	19.7		92	296	
Other Europe	150	155	155				690	965	845
U. S. S. R. (Europe and Asia)	788								
Africa:									
Belgian Congo and Ruanda Urundi	16	15	15	9.9	10.4	10.4	162	154	154
Nigeria[5]							594	522	370
Union of South Africa							50	67	
Asia:									
Turkey (Europe and Asia)	15	7		13.1	18.3		191	136	
China	29,800	28,000	23,000	11.4	12.0	15.2	340,000	335,000	350,000
Indonesia	1,241	1,280		10.6	10.3		13,104	13,131	
Japan	947	900	856	17.7	18.8	18.7	16,735	16,865	16,051
Korea, South	661	685		8.5	8.2		5,636	5,610	
Taiwan	93	101	99	10.5	12.0	12.6	972	1,215	1,249
Thailand	59	63	63	14.1	16.0	15.8	825	1,009	1,000
Total excluding "Other Europe," U.S.S.R., China-Mainland and North Korea	24,285	24,495	27,035	.....	.....	.....	498,620	531,555	623,050
World total[6]	55,725	54,140	51,680	.....	.....	.....	848,975	877,185	983,560

[1] Years shown refer to years of harvest. Southern Hemisphere crops which are harvested in the early part of the year are combined with those of the Northern Hemisphere harvested the latter part of the same year. [2] Figures refer to harvested areas as far as possible. [3] Preliminary. [4] Acreage harvested for beans. [5] Purchases for export. Local consumption is small. [6] Includes estimates for the above countries for which data are not available and for minor producing countries. Foreign Agricultural Service. Prepared or estimated on the basis of official statistics of foreign governments, other foreign source material, reports of U. S. Agricultural Attaches and other U. S. representatives abroad, and related information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries, except as noted.

ROSKAMP
GRAIN ROLLER MILLS

These roller mills are used successfully to reduce soybeans as well as to crimp or crack other grains.

The rolls are 9 inches in diameter, solid white iron. A finger-tip lever controls the flow of grain to the rolls and quick change, positive controls adjust the rolls.

Two stand mills are priced from $1040 to $1907.

The Best Roller Mill Value for Your Dollar.

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Most Russian Beans in Soviet Far East

BY FAR the greater part of Russian soybean acreage is found in the Soviet Far East where the soybean is produced for both grain and forage, according to I. A. Minkievich, Russian doctor of agricultural science.

In this area, according to Dr. Minkievich, a significant increase in seedings is hardly practicable, since the crop already takes up large acreages as compared with other crops. For instance, in the Amur province and in the Primorsky region many state farms keep two and even three fields in soybeans, in rotation.

Efforts to develop soybean cultivation in regions farther to the North, in the left-bank plains of the Ukranian Republic, as well as in the Southeast and the central "non-black earth" strip have up to now been unsuccessful because of lack of adequate rainfall. Attempts to introduce the soybean into Western Siberia and in the non-black earth strip have failed also because of lack of adapted varieties.

However, some new early maturing varieties have been developed which should make it possible to introduce soybean culture into northern districts of the Far East and certain areas of Siberia with adequate rainfall according to Minkievich.

Soviet soybean production can be expanded materially in the next few years by improving acreage yields on land where the legume is already grown and by putting large areas of new territory into the crop, he says.

"The introduction of soybean culture into vast new territories will enable us to obtain sufficient crops for grain and forage, as well as for green manure," says Minkievich. "This will of course be an important factor in improving the level of agricultural and livestock raising operations in those areas.

"We must recommend that large-scale experimental seedings of soybeans with corn and millet for forage and silage be carried out in the districts of the 'non-black earth' strip, in the Baltic Republic, where the day is long and rainfall heavy, seedings of soybeans with corn in the districts with sufficient moisture (Northern Caucasus), and again seedings of soybeans with corn and foxtail millet in the southern districts of the Altaic region with adequate moisture, as well as in some other Siberian provinces.

Soybeans—A High-Grade Protein, Oil and Forage Crop. By I. A. Minkievich, Soviet doctor of agricultural science. Translated from the Russian original by O. Fua.

Sees Rapid Increase in Brazil's Demand for Fats

IMPROVEMENTS in the supply situation of edible oils in Brazil may be expected as a result of the erection in Rio Grande do Sul of a large solvent extraction plant for processing soybeans.

Production of soybeans in the states of Rio Grande do Sul and Sao Paulo increased rapidly after they were first introduced into Brazil. Production is practically static at present, owing to lack of sufficient farm machinery to mechanize the crop.

The soybean is the only cultivated oilseed exported from Brazil in significant quantity in recent years. During 1949-54 exports averaged about a million bushels annually.

The population of Brazil increased from 41.1 million in 1940 to 57.2 million in 1954, or 30%. According to a report of the United Nations, it is anticipated that the population of Brazil will reach 100 million in 30 years.

It can be anticipated that Brazil's demand for fats and oils will increase even more rapidly than population due to increasing per capita purchasing power.

During recent years the continually increasing domestic demand for fats and oils was satisfied largely by the almost complete cessation of exports of edible oils and oilseeds, and by importation of increasingly larger quantities of edible oils and palm oil.

In view of Brazil's foreign exchange position it is unlikely that imports of fats can be increased. It is equally unlikely that the production of cottonseed oil can be augmented because of lack of market for fiber. It is evident that the production of the so-called extractive oils (babassu and other palm oils) will decline instead of increase because of lack of labor.

The deficit in edible oils can probably be overcome by increased production of peanuts and soybeans and

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possibly of olives which are being planted in the south of Brazil.

Fat and Oil Resources and Industry of Brazil. By Klare S. Markley. Economic Botany. April-June 1957. Vol. 11, No. 2. Box 749, Lancaster, Pa.

Trend in Food Use To More Soybean Oil

FOOD FATS and oils are just as popular today as they were 20 years ago.

That's what Agricultural Marketing Service's economists found when they added up the amount of fats and oils used for food in the United States during the past 20 years and made adjustments for population changes.

Economists estimate that, on a per person basis, civilians used about 45 pounds of food fats and oils in 1957, the same amount as in 1935-39.

Yet there has been a gradual shift in the kinds of end products consumed and the kind of fats and oils used.

Today's diets include more margarine, cooking and salad oils, mayonnaise, salad dressings and related products; about the same amount of shortening, and less butter and lard.

The consumer is getting much more soybean oil in his food fats; a little more edible beef fat and corn, olive and peanut oils; but less butter, lard, and cottonseed oil.

The greatly increased use of soybean oil has been the most important single change in consumption patterns. This has occurred mainly since 1942.

Food Uses of Fats and Oils. By George W. Kromer. Agricultural Marketing, September 1958. Washington 25, D. C.

Ethanol Superior For Some Purposes

ETHANOL (ethyl alcohol) is preferred in India and other Asiatic countries for extraction of oilseeds because of its greater availability and lower cost. In addition, oil meals resulting from alcoholic extraction appear to be superior for some purposes to those from hexane extraction.

Equipment for solvent extraction developed at the Iowa Engineering Experiment Station should be well adapted to Asiatic and similar countries where smaller extraction plants than those common in the United States are desirable. Alcoholic pilot plant studies indicated the possibilities for the use of the equipment with ethanol for special purpose extraction in the United States and for general oilseed extraction abroad.

This equipment was designed some years ago primarily for small scale operation, is now being used commercially. Station laboratories have shown that the equipment can be used not only for soybeans but for other oil bearing seeds such as cottonseed, flaxseed, corn germs, rape seed, sunflower seed, and for meat scrap and fish scrap.

Alcoholic Extraction of Vegetable Oils. By R. K. Rao, L. K. Arnold and associates. Engineering Report 30 of the Iowa Engineering Experiment Station. 28 pages. Price 75¢. Iowa State College Bulletin, Ames, Iowa.

Market for Southern Products in Coatings

IMPORTANCE OF southern farm products in protective coatings, and research to expand the use of these products in such coatings, particularly research at the Southern Utilization Research and Development Division of the Agricultural Research Service, USDA, are discussed in a recent publication by Dr. C. H. Fisher, division director, and Dr. L. A. Goldblatt, head of industrial oil investigations in the division.

Several of the commodities under investigation in the Southern Division are either used in protective coatings, or by their nature show sufficient promise to encourage coating research. Contributions of SURDD to improvement of processing methods are cited, such as the filtration-extraction process for oilseeds.

Research to Improve and Expand the Use of Southern Farm Products in Protective Coatings was published in a recent issue of Official Digest of the Federation of Paint and Varnish Production Clubs. Single copies of reprints may be obtained from the Southern Utilization Research and Development Division, P. O. Box 7307, New Orleans 19, La.

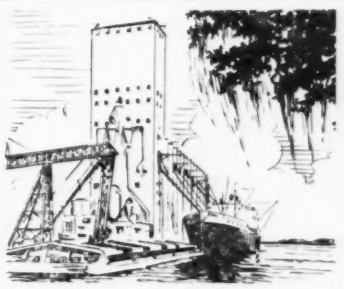
Takes 7 Bushels to Pay for Irrigation

ASSUMING TWO irrigations at a cost of $16 per acre, an increased yield of slightly over 7 bushels per acre at a value of $2.25 per bushel in the field would be necessary to cover the full costs of supplemental irrigation, according to a Mississippi report.

Irrigation Investment and Operating Costs in the Delta. By Thomas E. Tramel, Grady B. Crowe, and J. F. Abel, Jr. Mississippi Farm Research, May 1958. Agricultural Experiment Station, State College, Miss.

Combine Adjustments. By E. B. Wilson. Leaflet 54. Extension Service, Montana State College, Bozeman, Mont.

Soybean Silage for Sows. By J. L. Gobble, R. C. Miller and G. W. Sheritt. Agricultural Leaders Digest, October 1958, page 20. Columbia, Mo.



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Archer-Daniels-Midland Elects New Officers

John H. Daniels

Thomas L. Daniels

The board of directors of **Archer-Daniels-Midland Co.** has elected a new chairman of the board, president and executive vice president of the nationwide concern.

Thomas L. Daniels, president of ADM since 1947, was named chairman of the board.

John H. Daniels, formerly vice president and manager of ADM's formula feed division, was elected president and chief executive officer.

Richard G. Brierley, formerly vice president and manager of the alfalfa division, was named executive vice president.

The new top executives were announced following the company's annual stockholders' meeting. All other officers were reelected by the board.

In assuming the presidency of ADM, John Daniels is the third generation of his family to head the company, one of America's leading processors of agricultural commodities.

His grandfather, John W. Daniels, founded the Daniels Linseed Co. in Minneapolis in 1902 and remained as president until 1924. Daniels Linseed Co. became Archers-Daniels Linseed Co. from which ADM was formed in 1923. John Daniels' father, Thomas L. Daniels, has headed the company since the death of Shreve M. Archer in 1947.

As chairman of the board, Thomas L. Daniels plans to remain active in the business which during his 11 years in the presidency has become one of America's most highly diversified industrial enterprises.

Promotion of James G. Meier to manager of Archer-Daniels-Midland Co.'s isolated soy protein and soybean extraction operations at Evendale, Ohio, was announced by A. C. Hoehne, vice president and manager of the soybean division.

James G. Meier

Mr. Meier succeeds Mr. Brierley. He has been assistant manager of the plant since April 1957. He joined ADM in 1950.

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ST. PAUL 1, MINNESOTA

Riggenbach is Assistant Manager of Dannen Mills

Ray Riggenbach of Clovis, N. M., has been appointed assistant manager of **Dannen Mills,** St. Joseph, Mo. Mr. Riggenbach has had many years of experience in soybean processing and elevator operation with the Kansas Soya Co. and General Mills, Inc.

Ray Riggenbach

Dwight L. Dannen, company president, said the new post was created because of expansion of storage and milling capacities by the firm.

Andreas Elected Head Of Chemurgic Council

Dwayne O. Andreas, chairman of **Honeymead Products Co.,** Mankato, Minn., has been elected president of the Chemurgic Council. The 24-year-old Chemurgic Council is devoted to promoting research to develop new markets and new uses for agricultural products, and new crops for areas now producing surpluses.

In addition to being chairman of Honeymead, Mr. Andreas is a member of the executive committee of the National Soybean Processors Association; chairman of the trade development committee of the Soybean Council of America; secretary of the fats and oils advisory committee of the U. S. Department of Agriculture; president of the Andreas Foundation; member of the Chicago Board of Trade and of the Minneapolis Grain Exchange.

Swift Makes Switch in Meal Sales Managers

Thomas J. Nolan

John Bramfield

A switch in meal sales managers at soybean mills at Des Moines, Iowa, and Frankfort, Ind., has been announced by **Swift & Co.**

John H. Bramfeld, Jr., meal sales manager at Frankfort since 1953, will be transferred to a similar position at Des Moines.

Thomes J. Nolan, Jr., will become meals sales manager at Frankfort. He has held that position at Des Moines since 1957.

Bramfeld started with Swift in 1950 in the contract sales department at the Chicago general office, and was in that department until going to Frankfort.

Nolan also has been with Swift since 1950. He started his career with the company at Salina, Kans. as a salesman in the feed department.

James A. O'Neill, vice president of Continental Grain Co., has succeeded the late Samuel R. Strisik as president of the **New York Produce Exchange.** He has served as vice president of the exchange since 1957.

Tom English has been promoted to territory manager in eastern Indiana of the sales division of **McMillen Feed Mills.** William Riethmiller, a territory manager since 1955, has

been named manager of a territory in eastern Indiana.

A country grain elevator at Harrisburg, Ark., in a major soybean producing area 55 miles northwest of Memphis, Tenn., has been purchased by **Cargill, Inc.** The elevator, formerly the Landers Elevator & Storage Co., will originate new crop beans for the company's processing plant in Memphis.

La Choy, producer of heat-and-serve Chinese foods, started a series of four-color, full-page ads in the November issue of McCalls, with a display of a full-course meal and a reader offer of the new 32-page La Choy booklet, "The Art and Secrets of Chinese Cookery."

The promotion of Robert R. Chappius to assistant plant manager at the Decatur, Ind., plant of **Central Soya Co., Inc.,** was recently announced. He joined Central Soya in 1958 as personnel director of the Decatur plant.

The **Tennessee Seedsmen's Association** will hold its annual meeting at the Andrew Jackson Hotel in Nashville Feb. 15 and 16, President Wallace Dunn has announced.

C. H. Bell, president of **General Mills,** has announced that the company will break ground next spring on a multi-million-dollar research center to be built in Golden Valley, west of Minneapolis.

E. Mitchell Learmonth has moved from Charwood, Surrey, and his present address is Prouds, Thaxted, Essex. Mr. Learmonth is a director of **British Soya Products Ltd.,** who on Nov. 3 transferred their head offices and laboratories from London to the Grange, Puckeridge, Hertfordshire.

The promotion of John Ebersole to assistant plant manager at the Gibson City, Ill., plant of **Central Soya Co., Inc.,** was announced. He joined Central Soya in 1949 at the company's Harrisburg, Pa., plant. He became production engineer at the Gibson City plant.

Promotions in the grain merchandising division recently announced by **Central Soya Co.,** Fort Wayne, Ind.: Robert J. Bumgerdner from Chattanooga, Tenn., to the grain trading staff of the Fort Wayne office; Harold W. Boyd of the Chattanooga office to manager of the Chattanooga operations: Charles Schoolcraft, from Guntersville, Ala., to assistant manager of the Chattanooga grain operation; Carter Hulsey, of the Guntersville staff to resident manager of the Central Grain Co.

The Washington, Iowa, soybean processing plant of **Cargill, Inc.,** has completed installation of a 60-foot hydraulic dump, has increased storage capacity by 350,000 bushels to 1.2 million bushels, and has added a new 200-ton tank for bulk meal.

Jack Joyce, Springfield, Ill., has joined **Butler Manufacturing Co.,** representing the farm equipment division in southern Illinois. He represents Butler in on-the-farm grain storage and conditioning equipment, as well as commercial grain storage facilities and bulk feed handling and storage equipment. Mr. Joyce's experience has been in serving the feed industry as well as implement dealers, principally in the Midwest.

Ersel Walley, **Walley Agricultural Service,** Fort Wayne, Ind., was given a special award as a former trustee of the Ohio Farm Bureau Federation at a federation dinner at Columbus, Ohio, Nov. 11. Mr. Walley was given the award along with other living former trustees. He is a past president of the American Soybean Association and chairman of the market development committee.

John J. "Jack" Walsh, who represented the **Nitragin Sales Corp.** in Illinois, Wisconsin, Michigan and northeastern Indiana, died very suddenly Nov. 17. Mr. Walsh joined the Nitragin organization in 1940. He was well known in the seed trade where he spent the greater part of his life.

Spencer Kellogg & Sons, Inc., Buffalo, N. Y., has announced the election of Fred W. Thomas as a member of its board of directors. He was recently elected to the newly created position of executive vice president.

The **A. E. Staley Manufacturing Co.'s** Painesville, Ohio, plant resumed production 5 weeks after a dust explosion and fire shut down soybean processing there on Sept. 8. A new building to house office, laboratory and utility facilities destroyed in the half-million-dollar explosion is planned for early construction.

N. Hunt Moore & Associates, Memphis, Tenn., has been appointed representative for the Miehle-Dexter, Racine, Wis., line of blowers used in air conveying of soybeans and grains.

The **J. E. Dilworth Co.,** Memphis, Tenn., moved its Dilworth of Alabama branch from Tuscaloosa, Ala., to Birmingham, Ala., recently with a formal opening to be held early in January. The new address is 105 12th St. North. They will represent the same nationally known lines as carried in Memphis.

MODEL 300 LOS Steinlite
FAT & OIL TESTER
For rapid electronic measurement of fat and oil content of soybeans, flax, peanuts, cottonseed, expeller meal, meat and meat products and other fat and oil bearing products.
Proved by many satisfied customers
• Rapid Tests
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Now you can make rapid, easily made and accurate fat and oil content determinations on all fat and oil bearing products. Soybean processors say that non-technical personnel can make tests at ½ the cost and 1/20 the time—with, plus or minus, .5 of 1% of the accuracy determined by official laboratory methods. Write for complete information.
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U. S. Crop Source of Most Exports

THE 1958 NATIONWIDE soybean crop will probably be the source of about 90% of world soybean oil exports if export volume set during the past few years keeps up.

Eric Berg, University of Illinois agricultural economist, says that when exports of all fats and oils are considered, this country will probably export about one-third of the world total.

About half of the soybean crop value lies in soybean meal, with the rest of the value in the oil. Poultry and livestock feeders are using ever-increasing amounts of soybean meal as protein supplements, but the demand for soybean oil in this country has held relatively steady.

The end result of producing larger amounts of soybean meal is a surplus of soybean oil, Berg reports. The best practical long-run solution to the problem of how to handle the surplus oil seems to be via the export route.

During the recent years, countries in western Europe have been our best customers in the world oil market, but consumption in these relatively high-income countries has tended to level off. At the same time, U. S. soybean oil producion has been increasing and is likely to continue to go up.

With the world market situation tightening, we are faced with another potential threat to our market. Several annual oilseeds and several types of palm trees growing primarily in tropical countries have considerable oil-producing potential. Lack of capital in these countries has held down the development of these oil sources.

With the foreign oil sources partly undeveloped, the United States is now in a favorable position to compete in the world market, Berg points out. While soybean oil represents only about half the total value of the U. S. crop, most oils from the major foreign oilseeds make up 75% to 95% of the crop value.

This means that, if oil prices go down, producers of foreign oilseeds will be in a less favorable competitive position than the U. S. soybean grower, who still has a ready market for his soybean meal. Oil production in the low-income countries tends to be held back by low oil prices on the world market.

If we should choose to increase oil prices on the world market, the foreign sources would be encouraged to expand. Once in production, foreign oil sources would continue for years. Such production could put U. S. soybean oil in a very unfavorable position in the world market.

Since the high-income countries now take in a relatively constant supply of fats and oils, the most promising way to increase our exports is probably to increase our own share of the market to these countries.

If we could get the low-income countries to consume more of their own fat and oil supplies, exports from these countries which compete directly with our own exports on the world market would decrease. A relatively low price level would also encourage the low-income countries to use more of their own supplies.

Fats and oils are luxuries in these countries. To increase U. S. fat and oil exports directly to the underdeveloped countries, the exports would have to be subsidized, or even sent as gifts.

Soybean Meal Superior Protein Feed for Pigs

RECENT experiments at the University of Minnesota show that soybean oil meal alone apparently is as good a protein feed as there is for pigs. Sixty purebred Yorkshire and Yorkshire-Duroc crossbred pigs, divided into four lots, were used in the Minnesota tests.

One lot received soybean oil meal as the only source of protein, tankage replaced part of the soybean meal in the second, 5% of dried whey replaced part of the soybean meal in the third, and 3% of fish meal was substituted for part of the soybean meal in the fourth. All rations were the same otherwise, and were figured so that the pigs received 16% protein until they averaged 100 pounds, and 14% from then on.

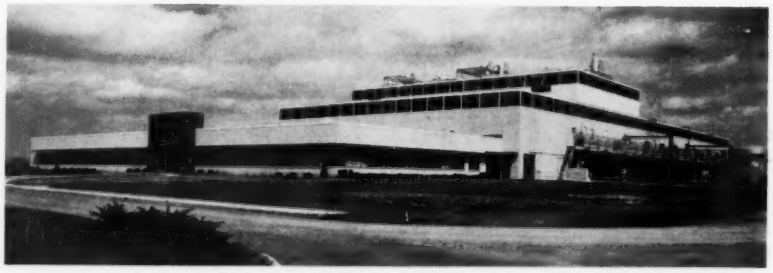
The pigs getting soybean oil meal as the only protein source gained 1.72 pounds daily and required 334 pounds of feed for each 100 pounds of gain. Those getting dried whey and fish meal showed practically the same gain and feed consumption and, according to the Minnesota researchers, substituting tankage resulted in the slowest gain and the highest feed requirement.

6.4-Million-Bushel Canadian Soybean Crop

CANADA'S 1958 soybean crop is now estimated at 6,490,000 bushels, 7% less than the first forecast and about 1% below last year's record crop, according to USDA's Foreign Agricultural Service, Washington, D. C.

The average yield is 24.7 bushels per acre compared with 25.5 bushels in 1957.

HumKo Opens Plant at Champaign



THE MODERN vegetable oil refinery of the HumKo Co. was officially opened recently at Champaign, Ill.

The plant, construction of which was begun in 1956, manufactures vegetable shortening under the HumKo and other labels, and also produces salad and margarine oils for other manufacturers.

Employment at the plant is expected to reach 300 people when it is in full production, according to Arthur H. Wood, general manager.

Operation of the new plant puts HumKo in a better position to serve northern and eastern markets, including ports for export. The strategic location of the area to soybean marketing also attracted HumKo to Champaign. Main sources of crude soybean oil are Illinois processors.

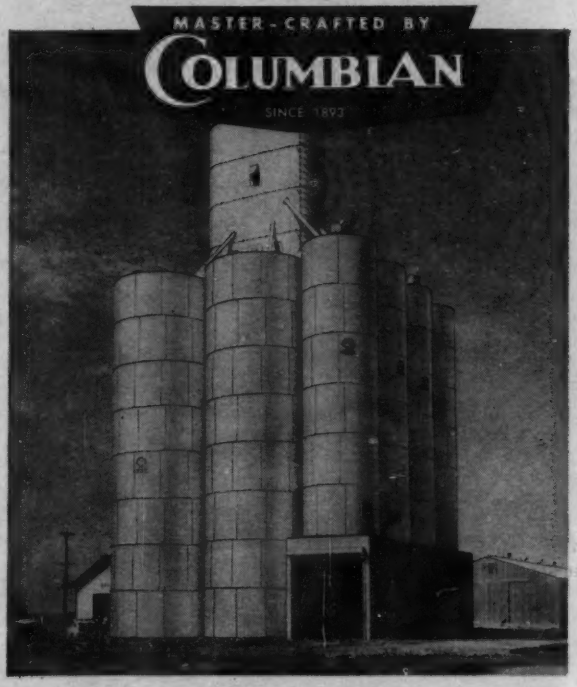
HumKo was established in 1930 in Memphis where it still maintains its home office and plant.

Only one-half of the 124-acre Champaign site is so far utilized. The design of the plant is such that future large increases in capacity are easily possible.

A plant on the West Coast is also in prospect, company officials say.

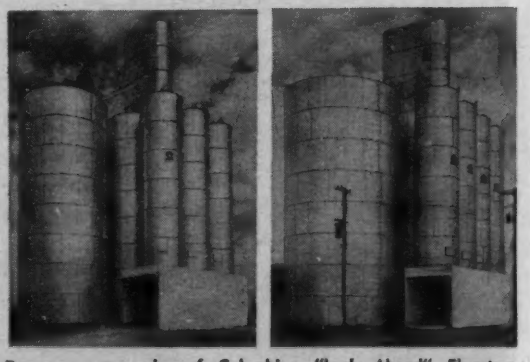
YOU Are NOT Seeing Double!

Both These Modern Grain Plants in Byron, Nebraska are BOLTED STEEL ELEVATORS



Almost identical are these two modern 96 ft. high Columbian Steel Elevators built by Jones Construction Co. of Grant, Neb. for Byron Grain Co. and Byron Co-operative Elevator. Each is 75,000 bu. capacity, each has four blending and classifying tanks over a drive-through loading and unloading dock. Grain is dumped into a pit under the dock, moved fast to storage tanks. Legs are large for fast handling of grain. The basic design makes a very flexible house.

DOUBLE PROOF that Columbian "Look Ahead" Elevators give you *extra Dollar Capacity* with Faster Grain Handling . . . Classifying and Blending facilities . . . Low Cost Expansion!



Two more examples of Columbian "Look Ahead" Elevators. *Left*, Burlington Elevator, provides 115,000 bu. capacity, at Hebron, Nebr.; *Right*, Riverdale Grain Co. elevator was built for 64,000 bu. in 1956, expanded to 107,000 bu. capacity in 1957. Both were built by Jones Construction Co., Grant, Nebr.

Throughout the Grain Belt, as in little Byron, Nebr., you'll find this same practical and efficient basic design of Columbian bolted steel elevators. It is duplicated over and over again. In large or small capacities, it includes both storage and blending and classifying tanks arranged for fast handling of grain. It offers maximum service to elevator customers, provides extra "dollar capacity" for the elevator operator, keeps him ahead of competition. Easily expandable, too—an important feature because a modern plant does bring in increased business. Low in first cost, this basic Columbian elevator is economical in use, as it is virtually a one-man operation

You can gain by the proved experience of Columbian contractors and engineers. Let them help plan *your* new elevator or expansion and modernization of your present facilities. **Write for free Columbian Grain Tank folder.** It shows you why Columbian engineering, design and construction can do more for you, for less.

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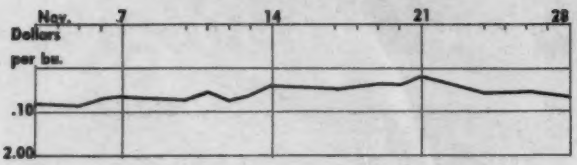
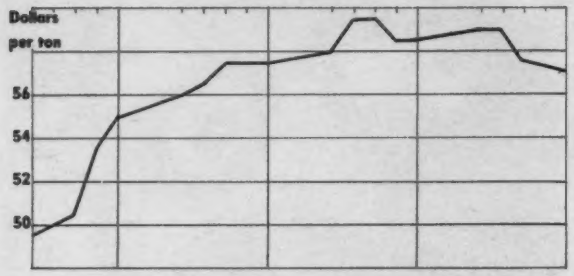
STEEL, Master-Crafted by Columbian . . . First for Lasting Strength

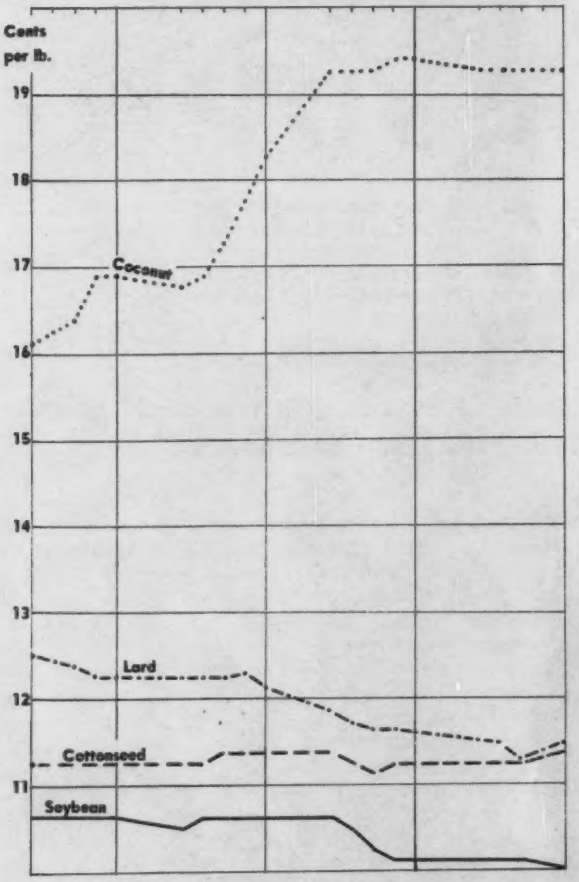
DAILY MARKET PRICES
No. 1 Cash Soybeans, Chicago



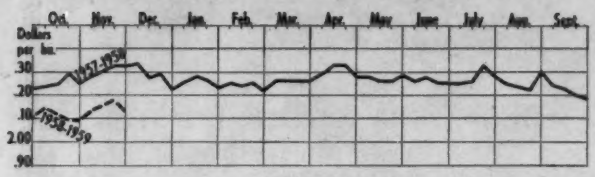
Bulk Soybean Oil Meal, Decatur



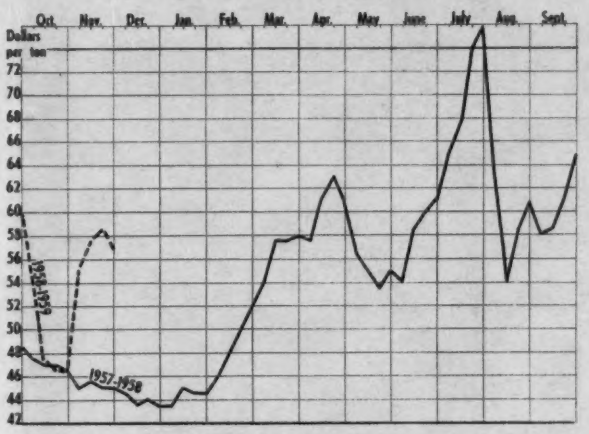
Crude Vegetable Oils and Lard



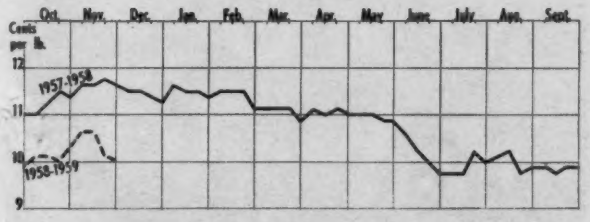
TRENDS AT A GLANCE (Weekly Close)
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur



Crude Soybean Oil, Tankcars



November Markets

CASH BEAN and meal markets were strong during November, tapering off toward the end of the month. Soybean oil lost ½¢. Bullish factors included:

1—Record breaking crushing operations.

2—Small country offerings following the end of harvest.

3—Exceedingly strong demand for soybean meal.

4—Announced lower freight rates on soybeans and soybean products.

5—Good export business.

6—The government's price support operations on cottonseed.

Coconut oil jumped to the highest prices since 1953 due to cuts in output in the Philippines and Indonesia.

BYPRODUCTS. The price of soybean fatty acids remained at 15¼¢ per pound during November. Acid soybean soap stock advanced from 4¢ to 4⅛¢. Raw soybean soap stock remained at 1⅜¢ per pound.

1957 AND 1958 SOYBEAN CROPS

	1958	1957
Soybeans crushed in October	33,436,963 bu.	28,055,489 bu.
Total soybeans inspected for overseas shipment and lake shipments to Canada Oct. 1-Nov. 21	23,099,537 bu.	20,571,361 bu.
Total soybeans under price support as of Oct. 31	23,006,953 bu.	21,920,550 bu.*

* Nov. 15.

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WASHINGTON DIGEST

Outlook: Growing Demand in 1958-59

By PORTER M. HEDGE
Washington Correspondent for The Soybean Digest

THE OUTLOOK for soybeans during the coming marketing year is a modestly optimistic one as seen by the Department of Agriculture outlook reports in late November, in spite of the superlative supply situation, and some uncertainties ahead.

Key elements in the outlook are a rising production of livestock products creating new and greater demands for soybean and other protein meals, and government policy as to disposition of the cottonseed oil it takes into Commodity Credit Corp. stock as the result of price support operations.

A comparatively wide range in the projected total exports of edible oils is carried in the outlook report, the main reason being uncertainty as to what CCC will do with cottonseed oil stocks it accumulates.

Leaders in the new Congress expect USDA to use cottonseed oil taken in price support operations for domestic and foreign donation programs, as authorized in last summer's price support legislation. They are prepared to adopt a resolution to this effect if necessary. In the meantime, it is known that some southern business interests have asked USDA to make price support oil available for donation programs. It also is known that there is support for this type of program from at least two top officials in the Department, including an Assistant Secretary.

Capsule Outlook

Here is the outlook in capsule form:

The biggest supply of soybeans ever available—596 million bushels—resulting from the biggest acreage ever planted and harvested, combined with the biggest yields ever produced, added to the largest carryover of record.

An estimate for the coming year of the largest crush—375 million bushels—combined with the largest exports as beans—90 million bushels—and a slightly reduced use as feed and seed—31 million bushels—bringing about a record total use of beans for any season—496 million bushels—and resulting in the largest carryover stocks of record—100 million bushels—next summer.

The outlook report this year again was prepared under direction of George W. Kromer of the livestock-fats and oils section of Agricultural Marketing Service. Again it contains a mass of useful information for those concerned with fats and oils problems, including 41 tables (some of them new this year) and a brief summary of current research.

The outlook for soybean meal is more favorable than that for oil because of an estimated increase of 4% in protein-consuming animal units, and the uptrend in rate of feeding protein feeds.

The estimate of a 375-million-bushel crush is 20% bigger than last season. A crush this size, USDA estimates, would produce about 4.1 billion pounds of crude soybean oil, and more than 8.8 million tons of soybean meal.

Demand for soybean oil this year will continue strong, but it will face stiffer competition from cottonseed oil and lard. Cottonseed oil competition will be reduced to the extent oil taken by CCC is withheld from the market.

USDA officials estimate domestic use of soybean oil probably will hold at or above last year's record of 3.1 billion pounds. The estimate of crush—a tentative one—would produce from ¾ to 1 billion pounds of soybean oil in excess of domestic markets. This would be available for export or carryover.

Soybean crushing capacity is well above the estimate of probable crush—425 million bushels. This is about 15% more capacity than in 1957-58.

China Competition

The 90-million-bushel estimate of soybean exports is up 4 million bushels from last season. The increase is expected to go mostly to Japan. "One of the biggest question marks," says the outlook report, "is the probable level of competition from Communist China.

"The Chinese have been exporting less soybeans and other oilseeds than prewar because of limited production and an apparent need to increase domestic food supplies. But Chinese exports may increase in 1958-59, as the soybean and peanut crops in China are reported to be up sharply from last year."

The farm price of soybeans during most of the current season is expected to average a little under price sup-

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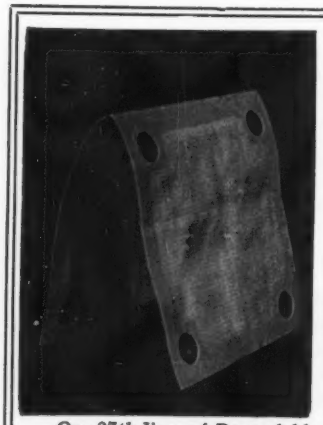

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port level. Later in the season prices are expected to return to the loan rate, but won't exceed it "by any significant margin."

Support Level

CCC sales policy on soybeans taken over next spring will be a factor in prices later on. Also, the price support level for beans produced next year. This year's support rate of $2.09 a bushel average was based on 70% of parity in February. The $2.09 rate is 68% of October parity. A drop in support to at least $2 a bushel (a fraction over 65% of parity) is not improbable for the 1959 crop.

Both oil and meal prices will be somewhat lower this year than last, according to present estimates. Crude oil, Decatur, averaged 10.8¢ a pound last season. This crop had the advantage of reduced supplies of both cottonseed oil and lard.

Competition will be tougher this season. The lard supply is estimated to increase by around 250 million pounds, most of it coming in the latter part of the crop year. The cottonseed oil supply—production plus stocks—is estimated at around 110 million pounds larger than a year ago. This competition, however, could well be erased to the extent that soybean oil replaces cottonseed oil acquired by CCC and held.

The soybean meal supply is up about 450,000 tons this season over last year. Prices last year averaged about $60 a ton. Soybean meal prices this year are expected to be more stable but at a lower average than last year. Only the upsurge in livestock and poultry output that has just started and may continue for 2 years or more will keep meals from declining more.

The supply of feed grains is record-shattering. Estimated carryover stocks of feed grains next year are 55 million tons above a normal reserve. This is more than enough to feed out an average spring and fall pig crop.

Because feed grain stocks are so excessive, livestock output is expected to continue unabated both next year and in 1960. While prices of soybean meal and animal proteins may average a little lower this season, demand for these feeds is expected to remain comparatively stronger than demand for feed grains.

Export Outlook

Concerning exports of edible fats and oils, USDA says in its outlook:

"In terms of human want the world market for edible oilseeds and their products seems almost limitless. But ability to pay for these commodities is another matter. This gap is partly bridged by the U. S. government export programs—mainly P. L. 480. In the 1957-58 marketing year about two-thirds of the U. S. edible oils exports were so financed. Without export programs our shipments would be much lower than they have been, and recipient countries would be consuming much less.

"But over the long term, the outlook for U. S. exports of edible oilseeds and their products appears bright. Population increases and the uptrend in per capita consumption suggest an expanding market.

"Also, it is not likely that foreign output will show any major sustained expansion. This does not mean that there may not be times when we will have difficulty in moving large supplies. What it does mean is that in the long run U. S. exportable supplies, though large, should be able to move in the export market."

Another large export movement of edible oils is forecast. P. L. 480 exports of oils "will probably exceed last year's 690 million pounds," says the outlook. About 160 million pounds of P. L. 480 exports programmed for this year consist of carryover from last year. Only 45 million pounds of oil were carried over from previous programs a year ago.

The new P. L. 480 programs are expected to call for at least as much edible oils as last year. Exports financed by International Cooperation Administration (ICA) are not considered large. Regular commercial sales will do well to hold their own, USDA figures. The estimate of total edible oil shipments for the season—between 1.1 and 1.3 billion pounds—compares with shipments of 1,053 million pounds in the year just closed.

Some decline in soybean acreage is expected in 1959. Price support will be lower. More acreage will be returned to corn and to cotton. A repeat of last year's favorable weather is not likely. However, another large crop is expected. With a carryover that may be as high as 100 million bushels, the total supply next year could set a new record.

Find Soybean Cyst Nematode in Virginia

THE SOYBEAN CYST nematode has been found in Virginia for the first time, according to the U. S. Department of Agriculture.

The nematode has been confirmed by USDA nematologists from soil samples from two farms in Nansemond County, Va., according to C. R. Willey, director, division of plant industry, Virginia Department of Agriculture and Immigration, Richmond.

Over 1,250 soil samples taken from 29 other heavy producing counties have been processed and found negative. Other samples are being processed, according to Mr. Willey.

Market Street

We invite the readers of THE SOYBEAN DIGEST to use MARKET STREET for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

Rate 10c per word per issue. Minimum insertion $2.00.

FOR SALE — FORDS PORTABLE feed grinder with mixers. Have one exceptionally good used outfit. H. L. Myers, Route No. 3, Alliance, Ohio. Phone TA3-7209.

STEEL GRAIN BINS—SOME 3,300, 4,400, 6,000, 7,000, 8,000 and 9,000-bushel capacities available at attractive prices. Midwest Steel Products Co., 121B Railway Exchange Bldg., Kansas City 6, Mo.

WANTED: FLAKING AND CRACKing rolls, meal coolers and driers and rollermills. Soybean Digest, Box 319-J, Hudson, Iowa.

PNEUMATIC "AIR - CONVEYOR" systems—stationary units or bulk truck, new or used. Any size, capacity, distance or product. Nolder Co., Box 14, Corona Del Mar, Calif.

FOR SALE—SEVERAL SIZES REbuilt grain cleaners. Also double spiral separators for sorting corn from soybeans. Cleland Mfg. Co., 2800 Washington Ave. North, Minneapolis, Minn.

FOR SALE—ANDERSON Expellers and French screw-presses, cookers, driers, 5-high, 48-inch crushing rolls, 36-inch attrition mills, sewing machines, hammermills, cracking rolls, filter presses. Ray L. Jones, 1923 Hayselton Drive, Jefferson City, Mo.

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NEW PRODUCTS and SERVICES

BAGGING SCALE. Just announced by Burrows Equipment Co. is a new model bagging scale. Known as Model No. 700. This scale is extremely compact and occupies an area only 18 inches square. It can be quickly attached to a feed mixer, bin or hopper.

The scale will bag at the rate of six to eight bags per minute. The bag clamp is designed to securely hold paper, cotton, or burlap bags of 50 to 100 pounds capacity.

Due to increased production facilities, this scale is available at a new low price.

For details write Soybean Digest 12c, Hudson, Iowa.

CUSTOM MILLING. Prater Pulverizer Co., with permission of Feedstuffs, has just published in booklet form a series of five articles on "Custom Feed Milling" by Al P. Nelson.

This complete series of articles can well serve as the custom feed miller's handbook on custom milling. Every miller after careful reading and study of this booklet can increase his efficiency and profits.

For your free copy write Soybean Digest 12a, Hudson, Iowa.

GUMP CATALOG. A new catalog for the milling, food and process industries has been issued by the B. F. Gump Co.

The 24-page catalog, No. 804, is a condensed presentation of the complete line of Gump equipment for these industries. Copies are available on request from Soybean Digest 12e, Hudson, Iowa.

CLEANING, HULLING. Simon-Carter Co. has recently published a new nicely illustrated booklet entitled, "Simon-Carter Cleaning and Dehulling Machinery for Soybean Plants."

Carter scalperators, millerators and aspirators are described. There are flow charts with Carter equipment for whole bean cleaning and for hull removal from soybeans when making 50% meal.

For a copy write Soybean Digest 12b, Hudson, Iowa.

CONVEYOR. Only one man is needed to load, weigh, transport and discharge bulk materials with a new bulk scale conveyor manufactured by Suttle Equipment Corp.

Called the Model No. 1200 Eze-Move bulk scale, this 1,000-pound-capacity conveyor can measure bulk materials within an ounce. Equipped with Fairbanks-Morse scale, this conveyor eliminates the need for stops at floor scales, or for built-in scales at the hopper.

The hopper has a capacity of 18 cubic feet, and will handle from 500 to 1,000 pounds of various materials.

For further information write Soybean Digest 12d, Hudson, Iowa.

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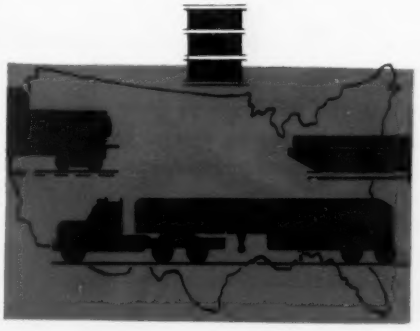

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IN THE MARKETS

EXPORTS. Preliminary data on U. S. exports of soybeans and soybean oil for September 1958, with comparable data for September 1957 and cumulative totals for the marketing years 1956-57 and 1957-58, reported by Foreign Agricultural Service, U. S. Department of Agriculture.

	Unit	September 1957	October-September 1958	1956-57	1957-58
Soybeans	bu.	4,508,759	1,649,219	85,360,847	85,507,173
Soybean oil:					
Crude	lb.	16,984,655	20,988,411	386,298,850	226,279,996
Refined but not further processed	lb.	8,943,065	33,922,247	93,424,546	160,484,271
Refined, deodorized and hydrogenated	lb.	1,278,832	48,690,267	327,538,386	416,496,757

Soybeans: U. S. exports by country of destination, October-September 1957-58 and 1956-57 (1,000 bu.)

	1957-58	1956-57		1957-58	1956-57
Canada	10,723	10,189	Hungary	1,151	.....
Mexico	1	1	Switzerland	401	270
Cuba	1	.....	Poland	1,796	328
Sweden	.....	661	Spain	.....	1
Norway	.....	1,405	Italy	34	15
Denmark	4,818	5,295	Trieste	19	.....
United Kingdom	3,992	1,959	Israel	3,649	2,507
Netherlands	10,844	14,151	Korea	2,423	2,160
Belgium & Luxembourg	2,575	2,617	Taiwan (Formosa)	3,790	3,517
France	910	2,124	Japan	26,822	22,881
W. Germany	11,158	15,139	Morocco	228	.....
			Other	174	142
			Total	85,507	85,361

[1] Less than 500 bushels. Bureau of the Census.

Soybeans: Inspections for export by coastal areas and country of destination, October 1958 (1,000 bu.)

Gulf			
Venezuela	15	Japan	4,086
Denmark	347	Subtotal	8,466
Netherlands	2,175	**Lake Ports**	
Belgium	67	Canada	2,126
West Germany	926	Grand total	10,592
Israel	767	Total Jan.-Oct. 1958	56,853
Korea	83	Total Jan.-Oct. 1957	59,368

Note: Data are based on weekly reports of inspections for export by licensed inspectors and do not include rail or truck movement to Canada or Mexico. In some cases the ultimate destination of the grain exported is not shown on the inspection reports, therefore, the quantity of each country may vary from official census data which are based on custom declarations.

Inspections for export by ports and lake shipments to Canada October 1958 (1,000 bu.)

Gulf			
New Orleans	4,147	Toledo	776
Mobile	2,073	Subtotal	2,126
Port Allen	2,246	Totals Oct. 1958	10,592
Subtotal	8,466	Jan.-Oct. 1958	56,853
Lake Ports		Jan.-Oct. 1957	59,368
Chicago	1,350		

Based on weekly reports of inspections for export by licensed inspectors and does not include rail and truck movement to Canada or Mexico.

U. S agricultural exports July-September 1957 and 1958 ($ million)

	1957	1958 [1]	Percent charge
Vegetable oils and seeds[2]	97	90	-7

[1] Partly estimated. [2] Excludes private relief.

Soybeans: Suez Canal, northbound shipments July and August 1956-58, October-August 1955-56 and 1957-58[1] (1,000 short tons)

	July		August			October-August	
	1957	1958	1956	1957	1958	1955-56[2]	1957-58
Soybeans[3]	36.4	52.9	12.1	45.2	114.6	500.4	468.5

[1] Marketing year 1955-56, rather than 1956-57, is given for use in comparisons since the Suez Canal was closed November 1956 through March 1957. [2] Exclude July 1956, for which no figures are available. [3] To convert bushels use 33.3 bushels per ton. Source: Monthly Bulletin, Suez Canal Authority.

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Title 1, P. L. 480 shipments July-October 1958

	October 1958			July-October 1958		
	Metric tons	Unit	Quantity	Metric tons	Unit	Quantity
Cottonseed oil	.....	....	.....	688	lb.	1,517,000
Soybean oil	38,735	lb.	85,396,000	134,462	lb.	296,438,000

Foreign Agricultural Service.

Soybeans exported under barter contracts negotiated by Commodity Credit Corp. (July 1-Sept. 30, 1958)

Quantity (thousand bushels)	Percent of total value	Export value (thousand dollars)
692	10.0	1,713

PROCESSING OPERATIONS. Reported by Bureau of the Census for September and October 1958.

Primary products except crude oil at crude mill locations: Production, shipments and transfers, and stock, October 1958-September 1958 (2,000 lbs.)

	Production		Shipments and transfers		Stocks end of month	
	October 1958	September 1958	October 1958	September 1958	Oct. 31, 1958	Sept. 30, 1958
Soybean:						
Cake and meal	785,032	591,293	768,051	627,809	65,047	48,066
Flour	12,481	11,045	11,716	11,807	2,139	1,374

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, October 1958-September 1958 (2,000 lbs.)

	Net receipts at mills [1]		Crushed or used		Stocks at mills	
	October 1958	September 1958	October 1958	September 1958	Oct. 31, 1958	Sept. 30, 1958
U. S.	3,531,336	748,416	1,004,111	751,968	2,943,363	416,138
Illinois	1,063,855	373,320	361,585	273,071	906,502	204,232
Indiana	452,001	[2]	95,346	79,616	371,768	15,113
Iowa	453,595	88,633	164,799	130,260	359,193	70,397
Kansas	[2]	24,509	[2]	[2]	[2]	17,801
Kentucky	[2]	[2]	[2]	[2]	[2]	[2]
Minnesota	172,124	45,625	79,751	53,852	108,734	16,361
Missouri	194,343	28,722	34,903	30,069	182,468	23,028
Nebraska	[2]	[2]	[2]	[2]	[2]	[2]
No. Carolina	[2]	[2]	.....	[2]	1,720	[2]
Ohio	478,378	38,327	92,480	77,691	399,217	13,319
Texas	[2]	.....	[2]	.....	[2]	.....
All other	717,040	149,280	175,247	107,409	613,761	55,887

[1] Net receipts for each state are derived by subtracting total shipments of beans from oil mills, from gross receipts at mills. [2] Included in "All other" to avoid disclosure of figures for individual companies.

Soybean products: Production and stocks at oil mill locations, by states, October 1958-September 1958

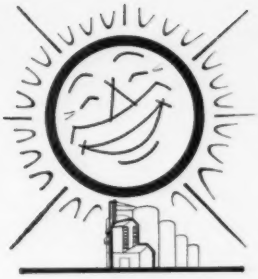
	Crude oil (thousands of pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	Oct. 1958	Sept. 1958	Oct. 31, 1958	Sept. 30, 1958	Oct. 1958	Sept. 1958	Oct. 31, 1958	Sept. 30, 1958
U. S.	352,574	269,825	54,933	50,930	785,032	591,293	65,047	48,066
Ill.	128,783	101,109	13,160	11,721	277,830	209,464	23,097	17,497
Ind.	32,876	28,090	2,069	7,069	76,171	64,145	4,148	5,558
Iowa	57,190	44,991	13,921	7,823	131,040	104,775	11,489	6,266
Kans.	1	1	1	701	1	1	1	1
Ky.	1	1	1	1	1	1	1	1
Minn.	27,394	19,788	9,306	9,737	62,225	43,405	3,520	2,255
Mo.	12,712	11,138	1,043	1,096	27,783	23,876	1,897	1,891
Nebr.	1	1	1	1	1	1	1	1
N. C.	.....	1	1	1	.....	1	1	1
Ohio	30,917	26,888	6,225	5,587	73,315	60,179	7,917	4,251
Tex.	1	.....	1	.....	1	.....	1	1
All other	62,702	37,821	9,209	7,196	136,668	85,449	12,979	10,348

[1] Included in "All other" to avoid disclosure of figures for individual companies.

Soybeans: Quantity processed at mills, United States, 1951-58 (1,000 bu.)

	1957-58	1956-57	1955-56	1954-55	1953-54	1952-53	1951-52
October	28,084	27,928	25,388	21,735	21,284	22,507	21,581
November	29,227	26,591	25,394	22,198	20,284	21,997	23,053
December	28,417	26,988	23,869	21,181	20,758	21,397	23,217
January	31,091	28,419	24,445	21,483	20,778	21,550	24,046
February	27,104	26,622	24,528	19,777	18,873	18,679	22,457
March	30,850	28,909	25,365	19,525	19,252	20,437	21,540
April	31,477	27,328	25,259	20,030	17,649	19,201	20,129
May	32,208	26,476	24,600	21,012	17,546	20,670	19,682
June	28,706	24,693	22,230	22,119	15,437	17,291	18,617
July	29,956	24,354	20,378	21,347	15,362	16,338	17,539
August	31,620	25,387	21,793	19,891	14,795	18,684	15,550
September	25,065	22,245	19,877	18,712	11,140	15,653	14,969
Total	353,805	315,940	283,126	249,010	213,158	234,404	244,380

Bureau of the Census



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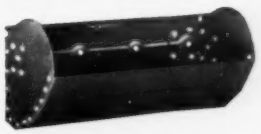
SHANZER GRAIN DRIER

SHANZER MANUFACTURING COMPANY
85 Bluxome Street
San Francisco 7, California

A Sales Record of More Than

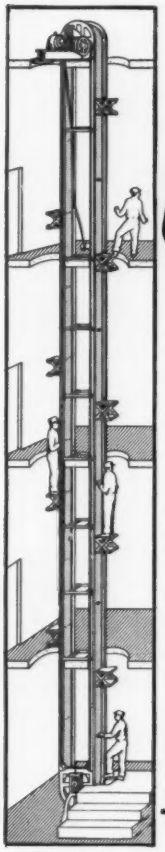
15 MILLION SUPERIOR ELEVATOR CUPS DP-OK-CC-V



For Better Results—Longer Life—More Capacity

"Elevator Cups Is Our Business, Not A Sideline"

K. I. WILLIS CORPORATION
MOLINE, ILLINOIS



HUMPHREY Manlift ELEVATOR

★ *Eliminates Stair Climbing*
★ *Saves Time—Reduces Fatigue*
★ *Safe—Economical—Dependable*

The Humphrey Elevator transports personnel simultaneously up and down—eliminates all stair climbing—provides quick access to any floor for servicing machinery. Riders just step on and off—control rope instantly starts and stops the endless belt—no waiting or lost time!

Can be installed in new or old multi-floor buildings. Initial cost, installation and operating costs are much lower than conventional elevators. Widely used in garages, flour mills, grain elevators, paper mills and all types of industrial mills and factories.

Write us stating your requirements and we will furnish full information, blue prints, prices.

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Humphrey is the original Manlift Elevator, made continuously since 1887.

PRICES. Average prices for soybeans received by farmers, effective parity, and support rates, reported by Agricultural Marketing Service (dollars per bushel)

Average farm price			Effective parity	Av. price as percent of parity	National average price support rate		
Oct. 15 1958	Sept. 15 1958	Oct. 15 1957	Oct. 15 1958	Oct. 15 1958	1958 crop	1957 crop	1956 crop
1.93	1.98	2.04	3.06	63	2.09	2.09	2.15

Average farm and parity prices from crop reporting board.

FACTORY USE VEGETABLE OILS for August and September 1958. Reported by Bureau of the Census (1,000 lbs.)

Factory production and consumption, and factory and warehouse stocks, September 1958-August 1958

	Factory production		Factory consumption		Factory and warehouse stocks	
	Sept. 1958	August 1958	Sept. 1958	August 1958	Sept. 30, 1958	Aug. 31 1958
Cottonseed, crude	96,315	48,129	76,745	50,414	49,061	33,025
Cottonseed, refined	70,434	47,029	96,931	91,901	72,268	94,564
Soybean, crude	269,825	340,868	297,234	295,289	148,462	238,214
Soybean, refined	281,373	279,672	316,579	308,269	82,047	98,526
Vegetable foots (100% basis)	18,647	18,204	16,591	13,731	53,919	53,846
Hydrogenated vegetable oils—						
Edible:						
Cottonseed	24,527	22,748	21,347	22,459	10,232	10,222
Soybean	146,633	153,695	136,182	116,581	43,254	46,479
Other	6,105	6,595	6,288	5,673	3,046	3,061
Margarine[1]	136,552	118,020	(NA)	(NA)	26,794	30,752

NA—Not available. [1] Data for stocks exclude quantities held by consuming factories.

Factory consumption of vegetable oils, by uses, during September 1958

	Edible products				Inedible products		
	Shortening	Margarine	Other edible	Soap	Paint and varnish	Lubricants and similar oils[1]	Other inedible[2]
Cottonseed, crude	.....	.....	.....	.....	.....	(3)	(3)
Cottonseed, refined	11,979	401	2,284	(3)	.....	(3)	254
Soybean, crude	.....	.....	.....	17	335	(3)	1,938
Soybean, refined	58,701	9,066	11,907	(3)	6,489	16	6,264
Foots, vegetable, raw and acidulated (100% basis)	.....	.....	.....	3,097	(3)	(3)	2,785
Hydrogenated vegetable oils, edible:							
Cottonseed	8,950	10,261	2,136	.....	.....	.....	.....
Soybean	47,394	86,254	2,435	.....	.....	.....	.....
Other	2,244	2,322	.....	.....	.....	.....	.....

[1] Includes quantities consumed in lubricants, greases, cutting oils, dielectric oils, core oils, brake fluids, and metal working. [2] Quantities consumed in linoleum and animal feeds are included in above totals. [3] Not shown to avoid disclosure of figures for individual companies.

Consumption of primary fats and oils in fat splitting (1,000 lbs.)

	1958			1957	
	September	Jan.-September August	Jan.-September Cumulative	August	Jan.-September Cumulative
Soapstocks					
Vegetable foots	8,965	6,902	58,233	8,037	70,948

Source: U.S. Census Bureau.

MELLORINE. The October production of mellorine and other frozen desserts made with fats and oils other than milk-fat was estimated at 2,965,000 gallons, according to the USDA crop reporting board. This output was 18% greater than October 1957 and 36% more than the 1952-56 average for the month.

Production of mellorine and other frozen desserts made with fats and oils other than milk-fat, United States, 1958

Month	1952-56 Average*	1956*	1957*	Estimated 1958	Change from: 1952-56 Av.	1957
	Thousand gallons				Percent	
January	1,300	1,862	1,957	2,300	+77	+18
February	1,490	2,095	2,199	2,410	+62	+10
March	1,957	2,728	2,527	2,805	+43	+11
April	2,108	2,759	2,881	3,400	+61	+18
May	2,552	3,540	3,538	4,200	+65	+19
June	3,098	3,767	3,609	4,395	+42	+22
July	3,196	3,826	4,386	4,820	+51	+10
August	3,108	3,837	4,052	4,540	+46	+12
September	2,613	2,887	3,039	3,780	+45	+24
October	2,177	2,767	2,503	2,965	+36	+18
10 month total	23,599	30,068	30,691	35,615	+51	+16

* From enumerations.

STOCKS. Agricultural Marketing Service's commercial grain stocks reports for close of business on Friday or Saturday preceding date of report (1,000 bu.)

	Oct. 28	Nov. 4	Nov. 12	Nov. 18
U. S. soybeans in store and afloat at domestic markets				
Atlantic Coast	203	608	937	2,467
Gulf Coast	1,753	5,183	2,773	3,016
Northwestern and Upper Lake	1,258	2,274	3,017	3,289
Lower Lake	15,829	18,477	19,024	19,481
East Central	8,560	10,354	11,176	12,250
West Central, Southwestern and Western	4,197	4,593	5,119	5,108
Total current week	31,800	41,489	42,046	45,611
Total year ago	18,520	19,078	22,778	25,382
U. S. soybeans in store and afloat at Canadian markets				
Total current week	14	216	208	283
Total year ago	78	46	93	47
Total North American commercial soybean stocks				
Current week	31,914	41,705	42,254	45,894
Year ago	18,598	19,124	22,871	25,429

Primary receipts (1,000 bu.) of soybeans at important interior points for week ending:

	Oct. 24	Oct. 31	Nov. 7	Nov. 14
Chicago	4,594	2,513	1,276	593
Indianapolis	998	416	263	216
Kansas City	637	243	123	94
Milwaukee	.....	7	6	44
Minneapolis	1,037	506	386	193
Omaha	95	23	14	10
Peoria	110	52	8	15
Sioux City	18	2	.....	3
St. Joseph	306	60	13	7
St. Louis	1,221	465	151	65
Toledo	1,799	894	328	206
Wichita	112	76	65	36
Totals	10,927	5,257	2,633	1,482
Last year	4,171	2,982	3,396	2,189
Total Chicago soybean stocks	13,641	15,318	16,130	16,306

PRICE SUPPORT. 1958-crop soybeans put under price support through Oct. 31, 1958, compared to totals of 1957 crop through Oct. 15 and Nov. 15, a year earlier, in bushels, reported by Agricultural Marketing Service.

Warehouse-stored loans	Farm-stored loans	Total under support through Oct. 31, 1958 (including purchase agreements)	Total under support through Oct. 15, 1957 (including purchase agreements)	Total under support through Nov. 15,1957 (including purchase agreements)
21,454,358	1,350,888	23,006,953	2,783,510	21,920,550

Purchase agreements included in the above total of 1958 crop under support through Oct. 31 amount to 201,707 bushels. Of the quantity of 1958 crop put under support, farmers had repaid loans through Oct. 31 on 6,164 bushels.

1958 crop soybeans: Under price support by states through Oct. 31, 1958 (bushels)

	Quantity put under loan and purchase agreements			
	Warehouse	Farm	Purchase agreements	Total
Ark.	217,529	2,494	.....	220,023
Ga.	163	.....	.....	163
Ill.	4,348,233	85,274	80,394	4,513,901
Ind.	550,718	171,256	15,696	737,670
Iowa	5,087,691	840,374	68,098	5,996,163
Kans.	125,473	57,221	.....	182,694
Ky.	40,413	6,025	.....	46,438
Mich.	137,269	.....	1,723	138,992
Minn.	7,054,975	38,871	9,417	7,103,263
Miss.	91,242	.....	.....	91,242
Mo.	2,125,410	50,220	17,350	2,192,980
Nebr.	304,791	.....	1,200	305,991
No. Dak.	271,989	456	1,203	273,648
Ohio	776,463	67,988	6,626	851,077
Okla.	57,964	1,443	.....	59,407
S. C.	1,782	.....	.....	1,782
S. Dak.	139,317	29,266	.....	168,583
Tenn.	111,359	.....	.....	111,359
Tex.	744	.....	.....	744
Wis.	10,833	.....	.....	10,833
Total	21,454,358	1,350,888	201,707	23,006,953

INSPECTIONS. Soybeans inspected by grade and percent, reported by Agricultural Marketing Service.[1]

	October 1958[2]		September 1958		October 1957	
	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.
No. 1	29,864	23	5,736	19	26,104	28
No. 2	61,477	47	14,091	47	41,228	44
No. 3	25,357	20	7,926	27	17,209	18
No. 4	10,026	8	1,396	5	7,601	8
Sample	2,488	2	478	2	2,008	2
Total	129,212	100	29,627	100	94,150	100

[1] Carlot receipts have been converted to bushels on the basis that 1 carlot equals 1,750 bushels. [2] Of the October receipts, 860 bushels were black, 28,000 mixed, and the remainder yellow soybeans. Inspections of soybeans in October included 15,404,803 bushels as cargo lots, 9,778,060 bushels as truck receipts, and the balance as carlot receipts.

PLANNING

Giant Blaw-Knox Rotocel in plant of Honeymead Products Company, Mankato, Minnesota

switch to world's largest Rotocel doubled production—downtime only 13 days

To maintain a top competitive position in the soybean oil market, Honeymead Products Company decided last year to increase their production.

In 1953 Blaw-Knox had designed, engineered, and constructed a 500-ton-per-day Rotocel in Honeymead's soybean plant at Mankato, Minnesota —which was the largest unit of its type in the world.

In 1956 Honeymead gave Blaw-Knox another contract; this time for a 1200-ton-per-day Rotocel —again the world's largest.

To install this new unit with minimum loss of production time required complex, detailed planning by Blaw-Knox engineers. For instance, before the 500-ton-per-day Rotocel was taken out of production, every piece of pipe to connect the new 1200-ton-per-day unit was measured, cut and threaded. Every bolt and lock washer was on the job.

Results: the switch over was handled so efficiently that only 13 days of production time were lost. Honeymead more than doubled their production and improved their competitive position.

As a further result, Blaw-Knox obtained another assignment from Honeymead—to design, engineer and construct an oil de-odorization system, which also will be the largest of its kind in the world.

This Blaw-Knox experience and know-how—obtained in engineering and constructing 35 solvent extraction plants—are readily available to you. We welcome the opportunity to discuss your proposed projects and to give you our recommendations.

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2 TON LITTER...

IN 5 MONTHS 7 DAYS!

Below: At 99 days, 2,049 lbs.

Left: Off to market at 5 months 7 days, 4,005 lbs.

Joe Armstrong, Princeton, Indiana, who raised this litter to 1 ton in 99 days, has added another chapter to the amazing story of his 19-pig record-making Crossbred litter. Over two tons of pork in just over 5 months, under practical farm hog feeding conditions...using the regular Wayne program.

Total feed cost, farrowing to market, including grinding and mixing charges, totaled only $411.82. Marketed at just under 211 lbs., the feed conversion averaged 2.8 and cost per pound of gain was 10.28¢.

This litter grew to record weight on a program of Wayne Calfnip Milk Replacer, Tail Curler Rockets, Tail Curler Jr., Pig Balancer, Res-Q Diet, Hog Balancer, and corn. All are available to you at your local Wayne Feed Dealer.

SOUTHERN FARMER RAISING 5,000 HOGS A YEAR ON CONCRETE

Using the Wayne "complete feed" program of Tail Curler Jr., Tail Curler, and Hog Developer to 100 lbs. and then Wayne Hog Balancer and shelled corn to market weight, the Crawford and Simpson Hog Farm, Flora, Mississippi, shows a cost of gain of only 13¢ a pound, including sow's feed.

An assembly line farrowing and feeding system is carried out in converted wartime ordinance buildings. Pigs are weaned at 6 weeks, sorted for size and moved into growing sheds . . . at 100 lbs. they're heading for the finishing sheds. Concrete floors make sanitation easy. Confinement growing allows closer tending and supervision. Crawford and Simpson are convinced that they're on the right track with good management and the reliable Wayne Hog Feeding Program.

Robert Willis, herdsman, looks over three litters in the clean, concrete floored farrowing shed.

Ask your Wayne Dealer for the Pig & Hog Feeding Programs that can help you increase pork profits!

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